Installation Manual

STANDARD CONTROLLER

KS-1012-RS, KS-1024-RS
KS-1012-IP, KS-1024-IP

KaDe

VERSION 1.0

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Summary

Introduction

KS-1012/24-RS/IP series controllers were designed and developed for use in access control system. It is a high-tech product series which integrate information management, computer control and smart card technology. With industrialized design, the controller adopts dedicated four-layer and high-end CPU, and all components adopt original binding chip. All these characteristics contribute to the high-performance and reliability of the product.

KaDe Premium, the software for KS-1012/24-RS/IP controller series, is a powerful control and attendance management system. KaDe Premium is a self-owned technology and new generation one-card-solution smart management system. Based on one-card-solution structure, more functions are added on current access control system. The system supports Batch Operation, Self-defined Extension Output, Automatic Download during Different Times, Various Door-open Modes in Various Time Sections and Dismiss/Activate Security Function etc.

KaDe Premium can manage access group setup, display and record all real time event data. It can display the following information: card holder (name, photo), event time, door address and event type (working hours, work over-time, read card during non-working hours, invalid card and so on). Moreover, in case of unexpected event, KaDe Premium can trigger alarm and snapshot. KaDe Premium can also work with building automation, CCTV monitoring, guard against theft, fire-control and alarm and so on.

KS series controller: KS-1012-RS, KS-1024-RS, KS-1012-IP , KS-1024-IP .

Notice: KS-1012/24-RS/IP controller series only work with KaDe Premium software.

Symbol	Controller description
KS-1012-RS	Standard controller, one door-two way, two doors-one way, 2 readers ports, RS232 and RS485 port, 20 000 cards, 50 000 events, 20 000 alarms
KS-1024-RS	Standard controller, two doors-two way, four doors-one way, 4 readers ports, RS232 and RS485 port, 20 000 cards, 50 000 events, 20 000 alarms
KS-1012-IP	Standard controller, one door-two way, two doors-one way, 2 readers ports, TCP port, 20 000 cards, 50 000 events, 20 000 alarms
KS-1024-IP	Standard controller, two doors-two way, four doors-one way, 4 readers ports, TCP port, 20 000 cards, 50 000 events, 20 000 alarms

Installation Steps

1.1 Switch off all system power supplies.
1.2 Ensure correct components connection.
1.3 Connect the system in accordance with the wiring diagram. Please turn off computer and power off before connecting controller with computer.
1.4 Change controller communication mode (232 / 485 mode), communication rate, and communication address.
1.5 Check the connection again.
1.6 Switch on the power supply and start computer.

Definitions and Terminologies

Wiegand protocol:
Wiegand protocol is an interface protocol by which the ID identifying device sends data to access controller. Wiegand protocol is an uni-directional protocol and is downward only. It is composed of two data channels.
Normal Open:
Under normal situation, the common end (C) and Normal open end (NO) of output or input interfaces are not connected.
Normal Close:
Under normal situation, the common end (C) and Normal open end (NO) of output or input interface are short-circuited.
Fail-safe/ Fail-secure:
In Fail-safe mode, the lock keeps locked when power off.
In Fail-secure mode, the lock keeps locked until power on.
Baud Rate:
A kind of communication rate (unit is bit/s (bps)). Two devices can communicate only when they have the same baud rate.
Dry Contact:
A type of switch input mode without any voltage or current.
Controller Address
On the same bus, each device must have an unique identification code. KS controllers adopts address code as identification code.
Reset Switch:
The reset switch is used to hot-recover the controller during debugging or in case of special situations. The hot-recovery will neither affects the storage of controller, nor user setups.
Alarm Interworking:
Different inputs can control different exterior devices by connecting to different outputs. Here is one example: reader triggers DVR to snapshot or video recording.
Controller Failure:
Controller does not respond to any input and output, or only responds to part of input/output.

KS-1012-RS/IP Controller Technical Data

Parameter or function name	Parameter value or function description
Buffer capacity	
- Card buffer	20 000
- Event buffer - Alarm buffer	50 000 20 000
Electrical parameter	
- Supply power / Current load	9 - 15 VDC / <110 mA
Environment parameter	
- Environment	For indoor installation only
- Working Temperature	From -10°C to +55°C
- Relative Humidity	10% - 90%
- Size (L x W X H)	160 x 110 mm
- Cabinet size (L x W X H)	350 x 300 x 100 mm
Communication ports	
Direct PC connection	- RS232 | - TCP
Network connection (bus)	- RS485 |
Readers & cards	
- readers ports	2 ports - Wiegand interface
- card formats	26 /34 bit Wiegand, self-defined (26 - 40 bit)
- keypads format	4-bits, without buffering
Inputs	
- door contact input	NO / NC - 2 inputs
- exit button input	NO / NC - 2 inputs
- general inputs	NO / NC - 4 inputs
Outputs	
- lock control	Relays type DC 12V 3A - 1-2 outputs
- door alarm control	Relays type DC 12V 3A - 1-2 outputs
- general alarm (controller board)	Relays type DC 12V 3A - 4-2 outputs
- general alarm (module board - option)	Relays type DC 12V 3A - 4 outputs
Access level	
- access levels	200 in system / 42 in controller
- schedules	184 in system / 16 in controller
- holidays	64 x 32 days in system / 16 in controller
Identification mode	Card, PIN, Card or PIN, Card + PIN
Alarm relive	Synchronize with input state or delay

KS-1024-RS/IP Controller Technical Data

Parameter or function name	Parameter value or function description
Buffer capacity	
- Card buffer	20 000
- Event buffer - Alarm buffer	50 000 20 000
Electrical parameter	
- Supply power / Current load	9 - 15 VDC / <110 mA
Environment parameter	
- Environment	For indoor installation only
- Working Temperature	From -10°C to +55°C
- Relative Humidity	10% - 90%
- Size (L x W X H)	119 x 187 mm
- Cabinet size (L x W X H)	350 x 300 x 100 mm
Communication ports	
Direct PC connection	- RS232 | - TCP
Network connection (bus)	- RS485 |
Readers & cards	
- readers ports	4 ports - Wiegand interface
- card formats	26 /34 bit Wiegand, self-defined (26 - 40 bit)
- keypads format	4-bits, without buffering
Inputs	
- door contact input	NO / NC - 4 inputs
- exit button input	NO / NC - 4 inputs
- general inputs	NO / NC - 4 inputs
Outputs	
- lock control	Relays type DC 12V 3A - 2-4 outputs
- door alarm control	Relays type DC 12V 3A - 2-4 outputs
- general alarm (controller board)	Relays type DC 12V 3A - 4-0 outputs
- general alarm (module board - option)	Relays type DC 12V 3A - 4 outputs
Access level	
- access levels	200 in system / 42 in controller
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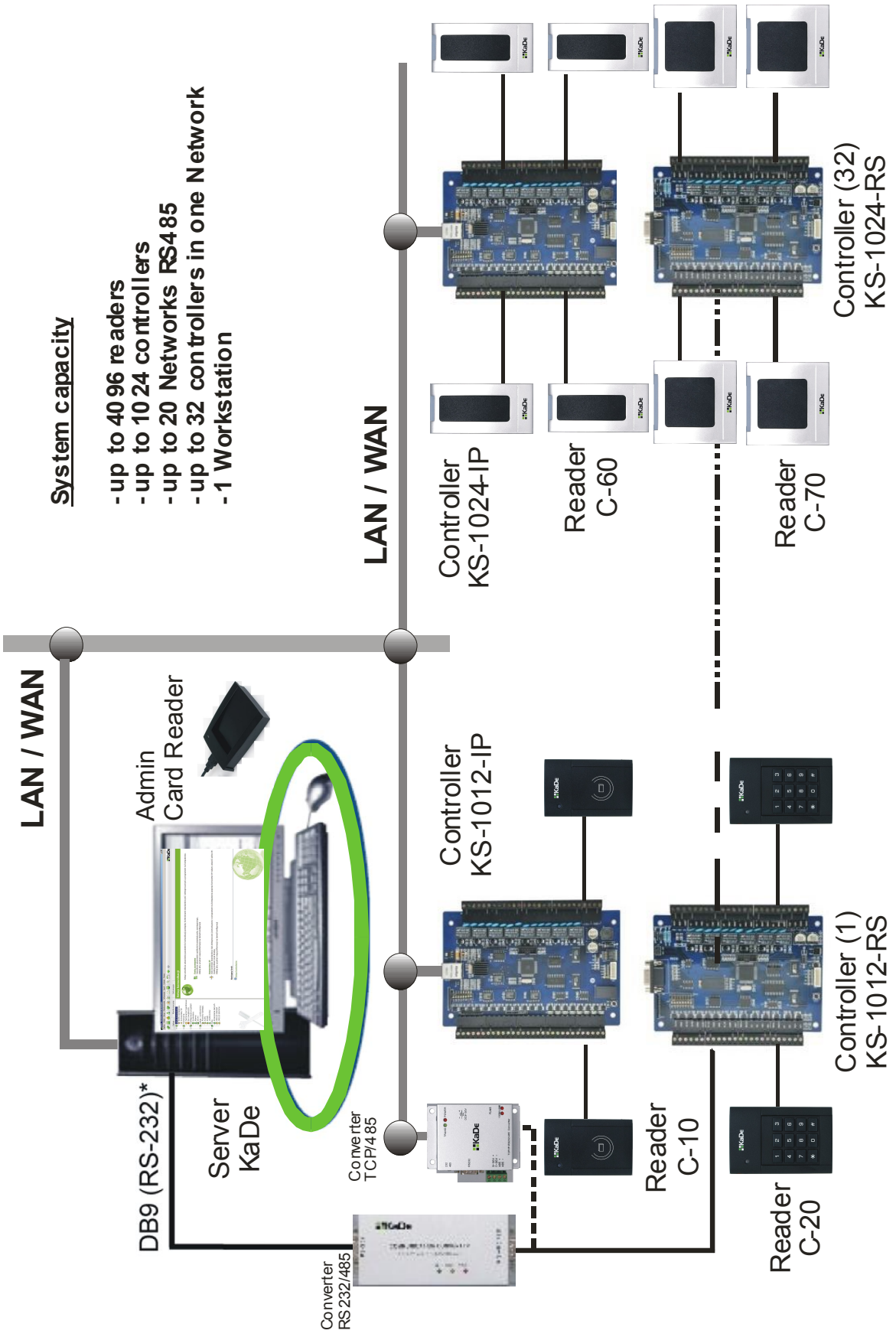
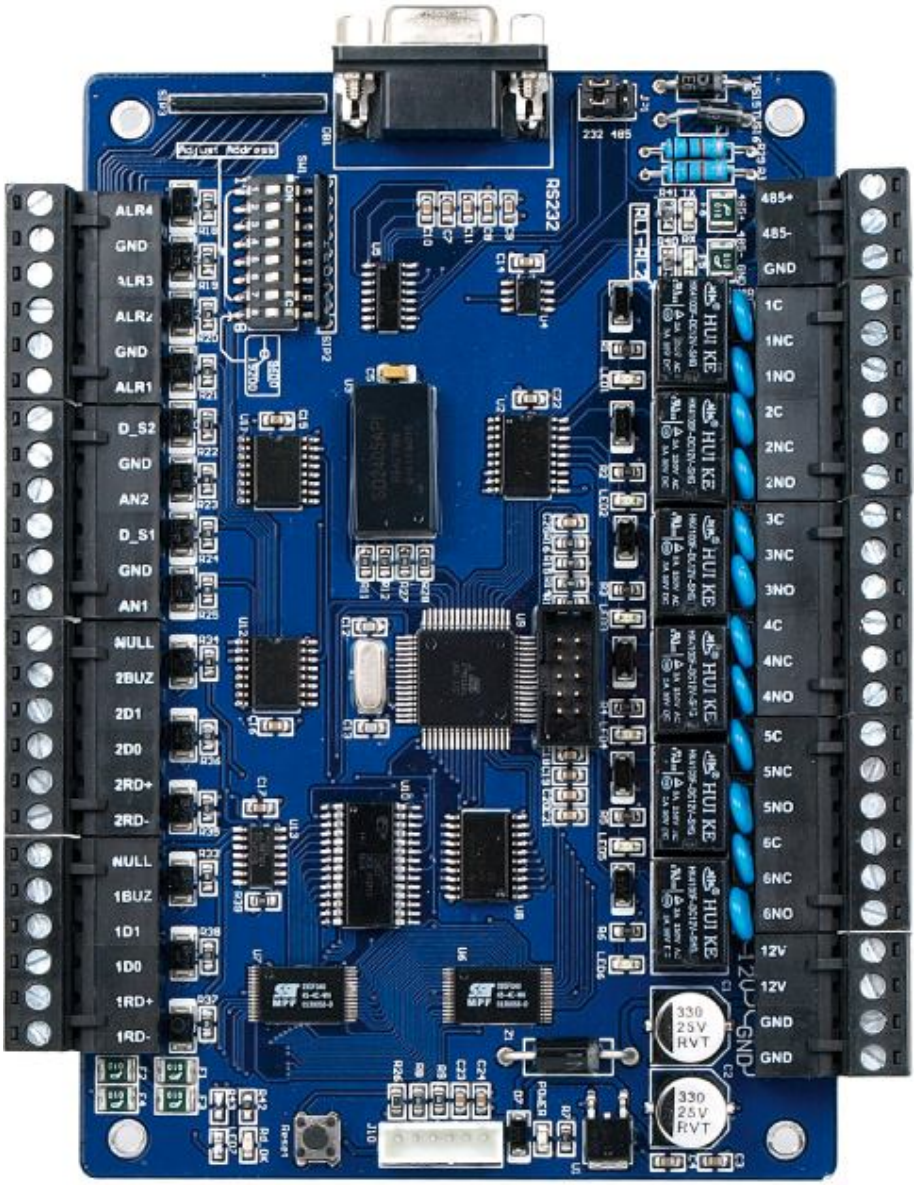
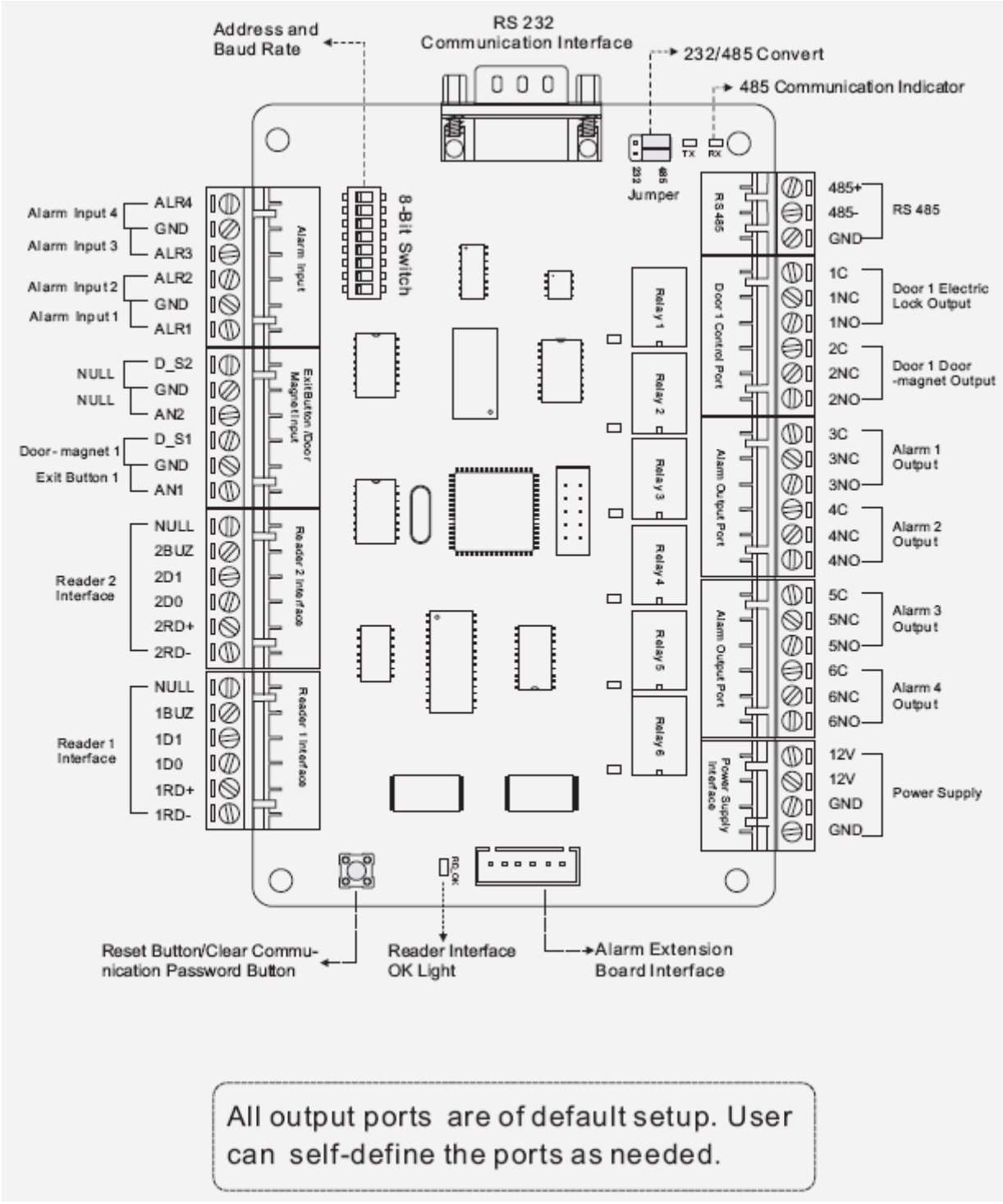
- holidays	64 x 32 days in system / 16 in controller
Identification mode	Card, PIN, Card or PIN, Card + PIN
Alarm relive	Synchronize with input state or delay



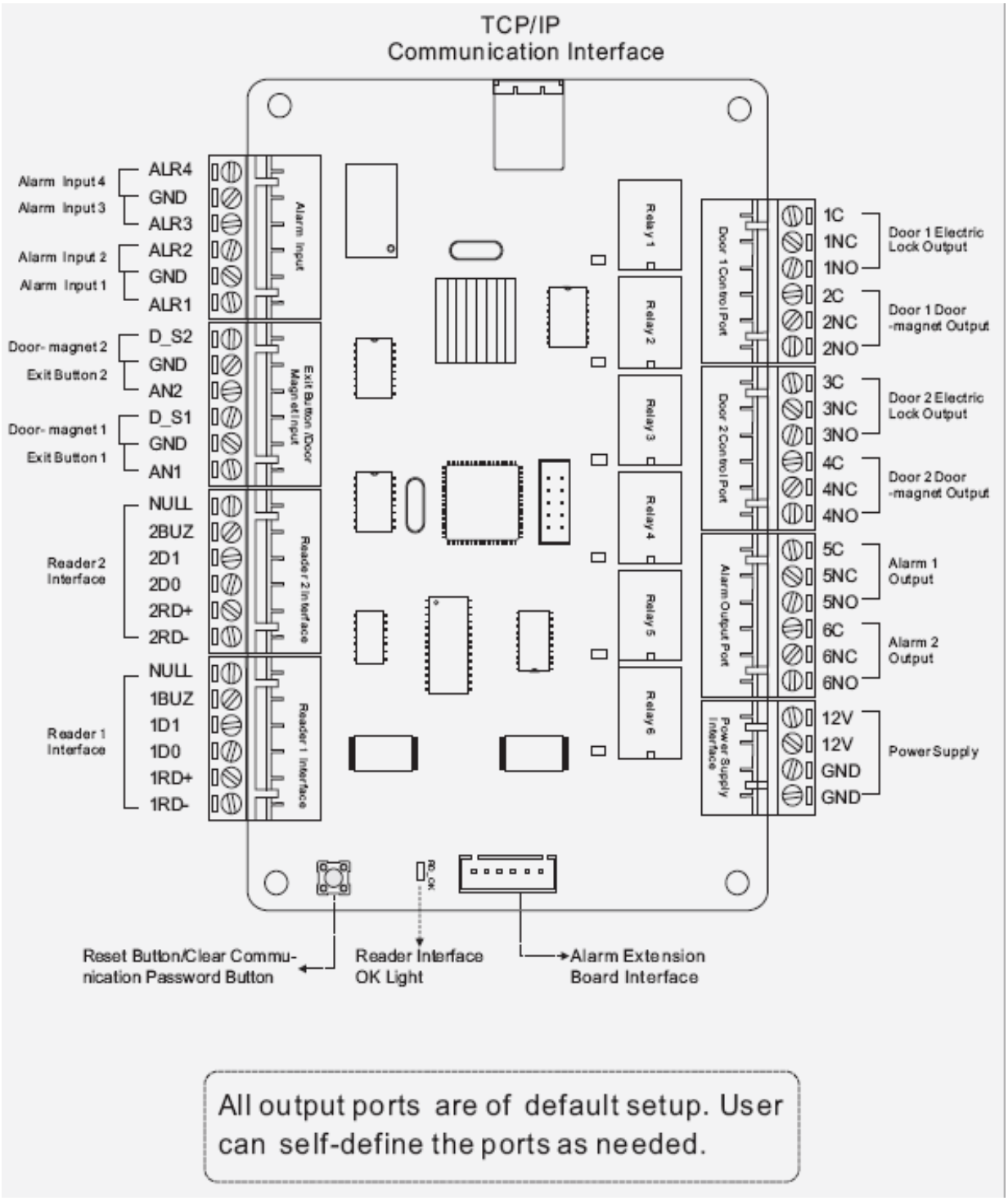
System circuit diagram KaDe Premium



KS-1012-RS controller module



KS-1012-RS controller module



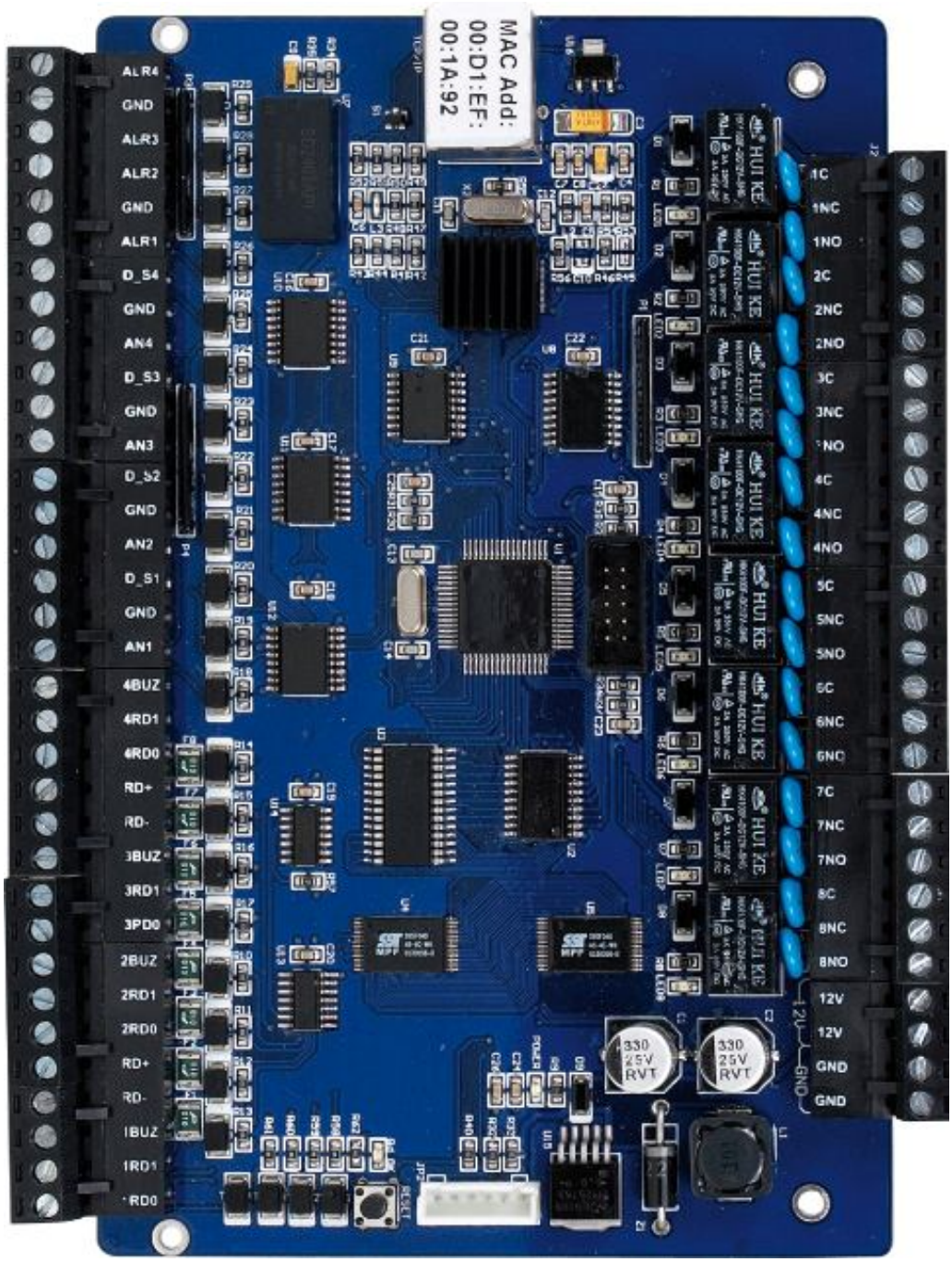
KS-1012-IP controller module

Controller connectors description - KS-1012-RS /IP - one-door two-way

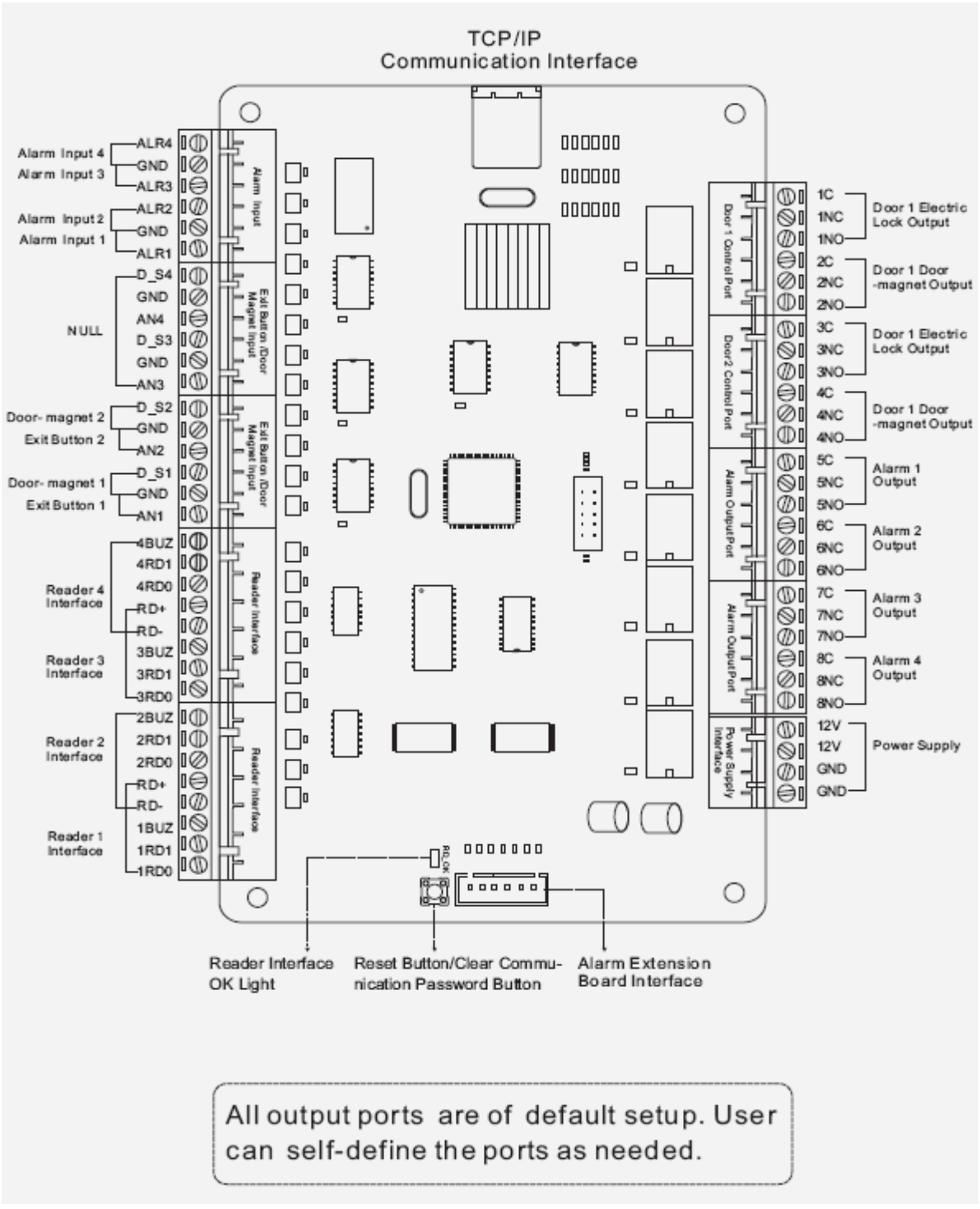
FUNCTION	Symbol	Section name	Section name	Symbol	FUNCTION
Input 4	ALR4	Alarm inputs	Communication port	485+	Communication port RS-485
GND	GND			485-	
Input 3	ALR3			GND	
Input 2	ALR2		Relays Door #1	1C	Lock relay Door #1
GND	GND			1NC	
Input 1	ALR1			1NO	
				2C	Alarm relay Door #1
Null	D_S2			2NC	
Null	GND			2NO	
Null	AN2		Alarm relays - Outputs control		
Door magnet input	D_S1	Door #1 Door contact Exit button		3C	Alarm relay Output #1
GND	GND			3NC	
Exit button input	AN1			3NO	
				4C	Alarm relay Output #2
Null	NULL	Door #1 Exit reader port		4NC	
LED or buzzer	2BUZ			4NO	
Wiegand 1	2D1			5C	Alarm relay Output #3
Wiegand 0	2D0			5NC	
Reader power +12V	2RD+			5NO	
Reader power -12V	2RD-			6C	Alarm relay Output #4
				6NC	
Null	NULL	Door #1 Entry reader port		6NO	
LED or buzzer	1BUZ				
Wiegand 1	1D1		Controller power	+12V	Controller power +12V
Wiegand 0	1D0			+12V	
Reader power +12V	1RD+			GND	
Reader power -12V	1RD-			GND	

Controller connectors description - KS-1012-RS /IP - two-door one-way

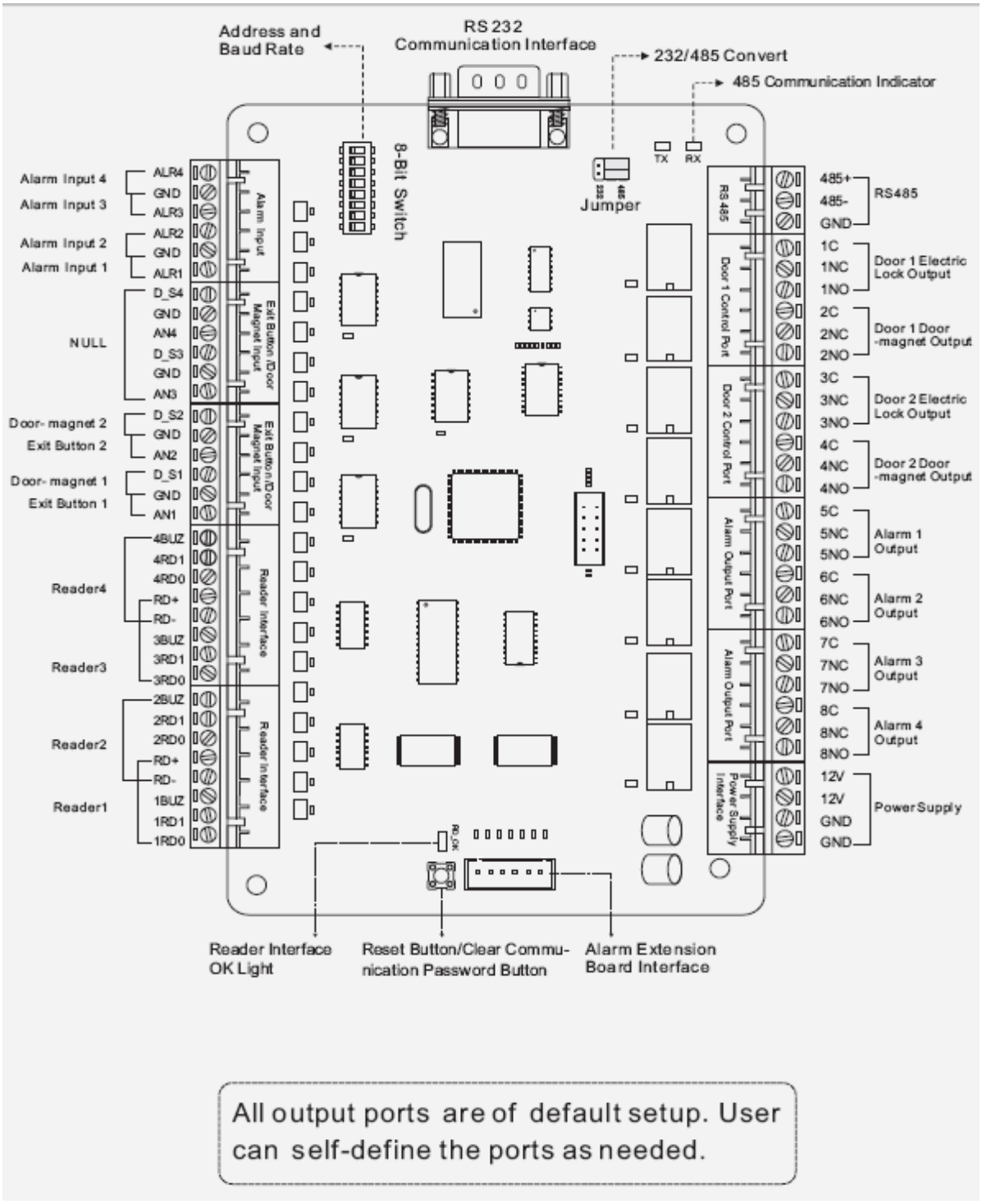
FUNCTION	Symbol	Section name	Section name	Symbol	FUNCTION
Input 4	ALR4	Alarm inputs	Communication port	485+	Communication port RS-485
GND	GND			485-	
Input 3	ALR3			GND	
Input 2	ALR2		Relays Door #1	1C	Lock relay Door #1
GND	GND			1NC	
Input 1	ALR1			1NO	
				2C	Alarm relay Door #1
Door magnet input	D_S1	Door #2 Door contact Exit button		2NC	
GND	GND			2NO	
Exit button input	AN1				
Door magnet input	D_S1	Door #1 Door contact Exit button	Relays Door #12	3C	Lock relay Door #2
GND	GND			3NC	
Exit button input	AN1			3NO	
				4C	Alarm relay Door #2
Null	NULL	Door #2 Entry reader port		4NC	
LED or buzzer	2BUZ			4NO	
Wiegand 1	2D1		Alarm relays - Outputs control	5C	Alarm relay Output #1
Wiegand 0	2D0			5NC	
Reader power +12V	2RD+			5NO	
Reader power -12V	2RD-			6C	Alarm relay Output #2
				6NC	
Null	NULL	Door #1 Entry reader port		6NO	
LED or buzzer	1BUZ				
Wiegand 1	1D1		Controller power	+12V	Controller power +12V
Wiegand 0	1D0			+12V	
Reader power +12V	1RD+			GND	
Reader power -12V	1RD-			GND	



KS-1024-IP controller module



KS-1024-IP controller module



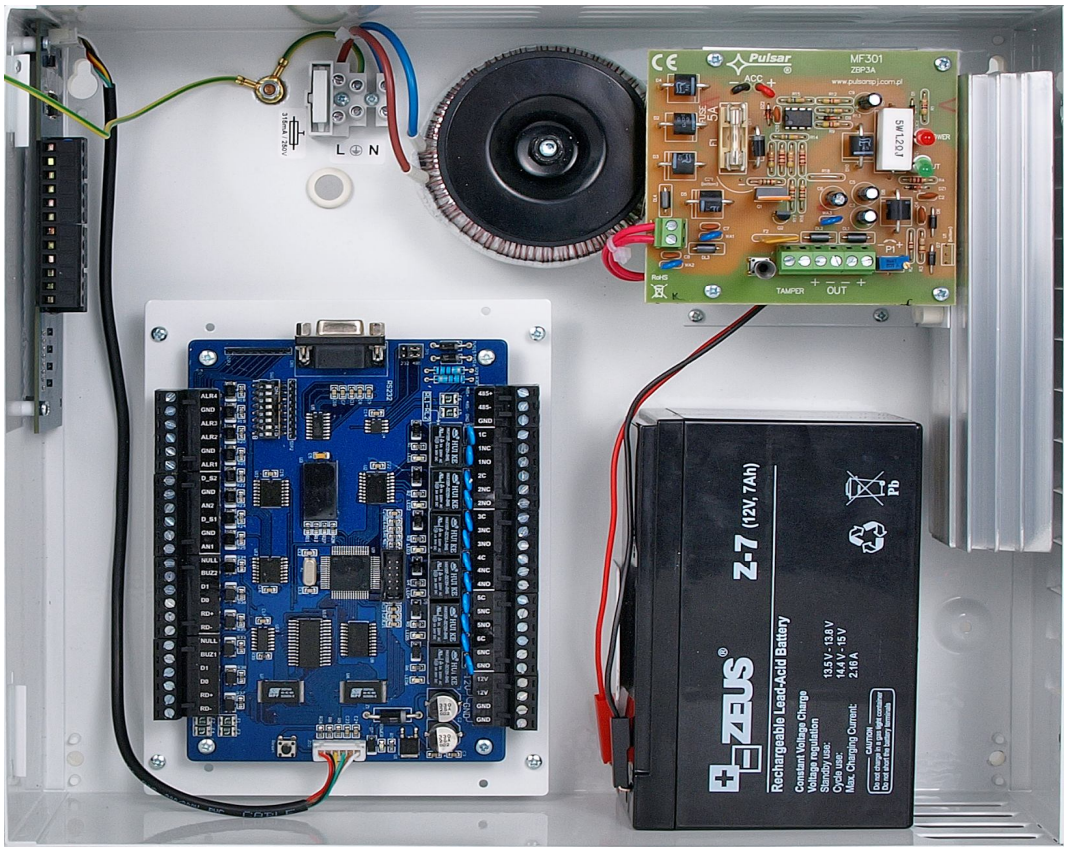
KS-1024-RS controller module

Controller connectors description - KS-1024-RS /IP - two-door two-way

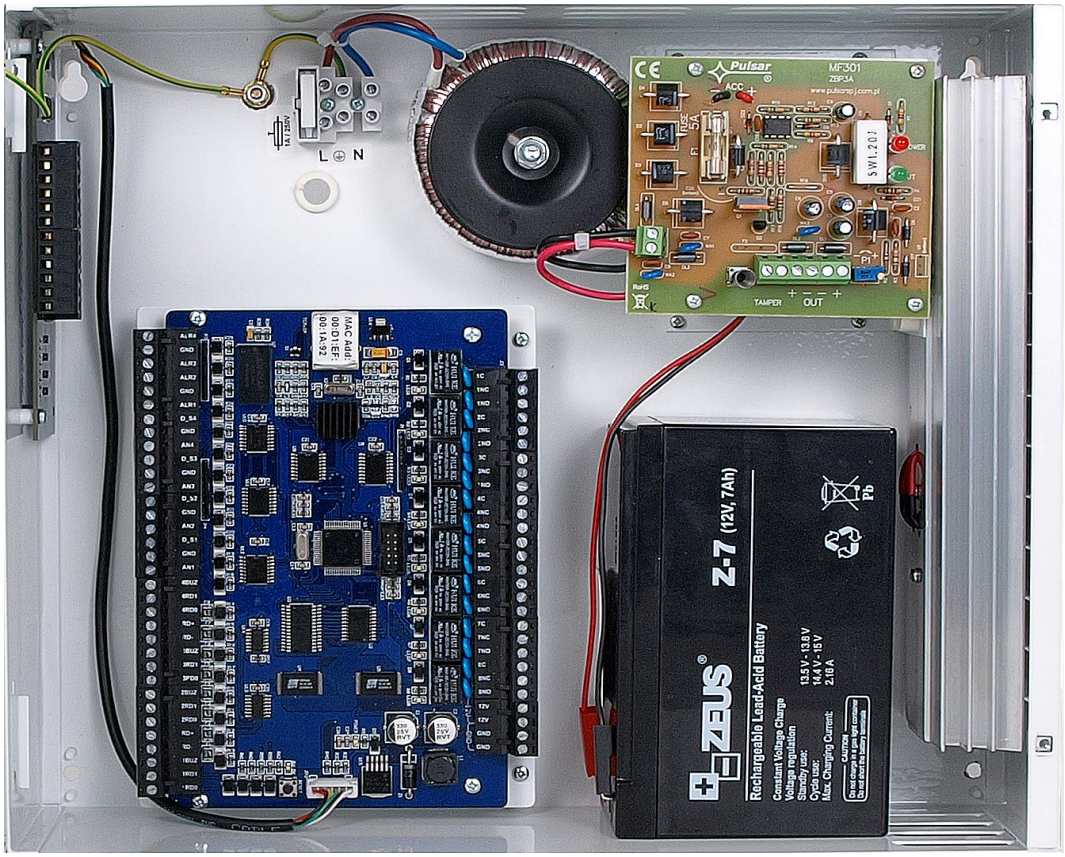
FUNCTION	Symbol	Section name	Section name	Symbol	FUNCTION
Input 4	ALR4	Alarm inputs	Communication port	485+	Communication port RS-485
GND	GND			485-	
Input 3	ALR3			GND	
Input 2	ALR2		Relays Door #1	1C	Lock relay Door #1
GND	GND			1NC	
Input 1	ALR1			1NO	
Null	D_S4			2C	Alarm relay Door #1
Null	GND			2NC	
Null	AN4			2NO	
Null	D_S3		Relays Door #2	1C	Lock relay Door #2
Null	GND			1NC	
Null	AN3			1NO	
Door magnet input	D_S2	Door #2 Door contact Exit button		2C	Alarm relay Door #2
GND	GND			2NC	
Exit button input	AN2			2NO	
Door magnet input	D_S1	Door #1 Door contact Exit button	Alarm relays - Outputs control	1C	Alarm relay Output #1
GND	GND			1NC	
Exit button input	AN1			1NO	
LED or buzzer	4BUZ	Door #2 Exit reader port		2C	Alarm relay Output #2
Wiegand 1	4D1			2NC	
Wiegand 0	4D0			2NO	
Reader power +12V	RD+	Reader power		1C	Alarm relay Output #3
Reader power -12V	RD-			1NC	
LED or buzzer	3BUZ	Door #2 Entry reader port		1NO	
Wiegand 1	3D1			2C	Alarm relay Output #4
Wiegand 0	3D0			2NC	
LED or buzzer	2BUZ	Door #1 Exit reader port		2NO	
Wiegand 1	2D1				
Wiegand 0	2D0				
Reader power +12V	RD+	Reader power			
Reader power -12V	RD-		Controller power	+12V	Controller power +12V
LED or buzzer	1BUZ	Door #1 Entry reader port		+12V	
Wiegand 1	1D1			GND	
Wiegand 0	1D0			GND	

Controller connectors description - KS-1024-RS /IP - four-door one-way

FUNCTION	Symbol	Section name	Section name	Symbol	FUNCTION
Input 4	ALR4	Alarm inputs	Communication port	485+	Communication port RS-485
GND	GND			485-	
Input 3	ALR3			GND	
Input 2	ALR2		Relays Door #1	1C	Lock relay Door #1
GND	GND			1NC	
Input 1	ALR1			1NO	
Door magnet input	D_S4	Door #4 Door contact Exit button		2C	Alarm relay Door #1
GND	GND			2NC	
Exit button input	AN4			2NO	
Door magnet input	D_S3	Door #3 Door contact Exit button	Relays Door #2	1C	Lock relay Door #2
GND	GND			1NC	
Exit button input	AN3			1NO	
Door magnet input	D_S2	Door #2 Door contact Exit button		2C	Alarm relay Door #2
GND	GND			2NC	
Exit button input	AN2			2NO	
Door magnet input	D_S1	Door #1 Door contact Exit button	Relays Door #3	1C	Lock relay Door #3
GND	GND			1NC	
Exit button input	AN1			1NO	
LED or buzzer	4BUZ	Door #4 Entry reader port		2C	Alarm relay Door #3
Wiegand 1	4D1			2NC	
Wiegand 0	4D0			2NO	
Reader power +12V	RD+	Reader power	Relays Door #4	1C	Lock relay Door #4
Reader power -12V	RD-			1NC	
LED or buzzer	3BUZ	Door #3 Entry reader port		1NO	
Wiegand 1	3D1			2C	Alarm relay Door #4
Wiegand 0	3D0			2NC	
LED or buzzer	2BUZ	Door #2 Entry reader port		2NO	
Wiegand 1	2D1				
Wiegand 0	2D0				
Reader power +12V	RD+	Reader power			
Reader power -12V	RD-		Controller power	+12V	Controller power +12V
LED or buzzer	1BUZ	Door #1 Entry reader port		+12V	
Wiegand 1	1D1			GND	
Wiegand 0	1D0			GND	



Supply power and metal cabinet for KS-1012-RS/IP



Supply power and metal cabinet for KS-1024-RS/IP

Installing the controller in the housing

Controller module must be installed in a dedicated buffer power supply housing proper for the controller model.
There are two dedicated housing:
AAT-2A - designed for controllers KS-1012-RS/IP (2 readers)
AAT-3,5A - designed for controllers KS-1024-RS/IP (4 readers)

Power supplies installed in these enclosures are performance as a symbol in the name of 2A and 3.5 A. This performance allows the power supply controller module, 2 or 4 readers and 2 or 4 electric locks (even electromagnetics lock for current consumption 500mA). The housings are designed to be installed inside the battery with a capacity 7Ah (in vertical position, in a special holder - as pictured on the next page.

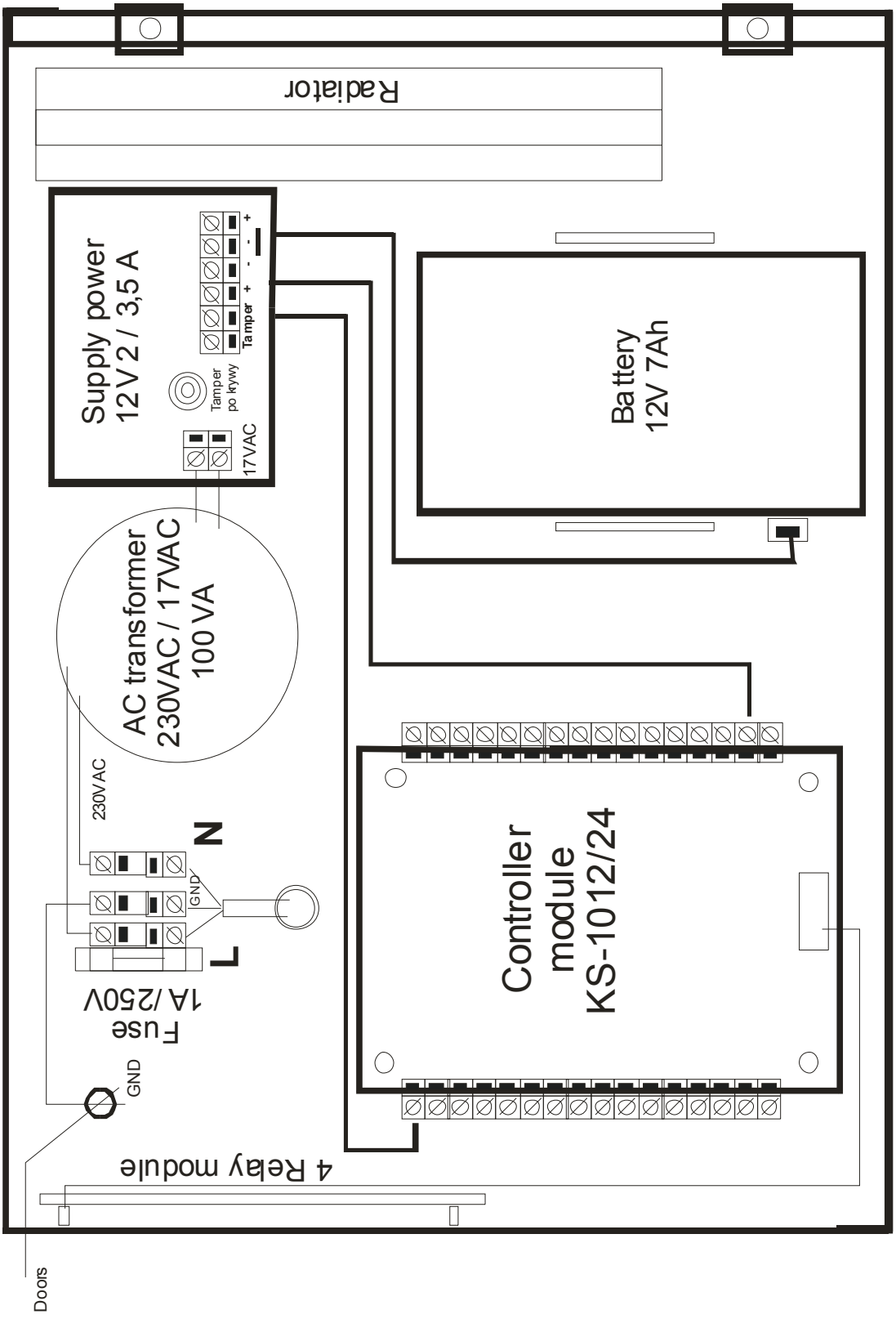
Connections inside the case:
- output voltage (12V), connect the terminal controller
- terminals "TAMPER" power connector into an available detector line input controller
- to the terminals at the edges of the controller attach cables from readers, locks, keys and door status sensor (door magnet)
- red (+) and black (-) cable from the power supply connected to the battery terminals
- 230 VAC mains plug to power cubes on top of the housing (through the existing fuse)

After completing all connections enable the supply voltage 230 V and validate the operation of the controller.

Housing has a removable door, which can be removed after unscrewing the cable mass.
Housing is closed on the two bolts screwed on the right edge.

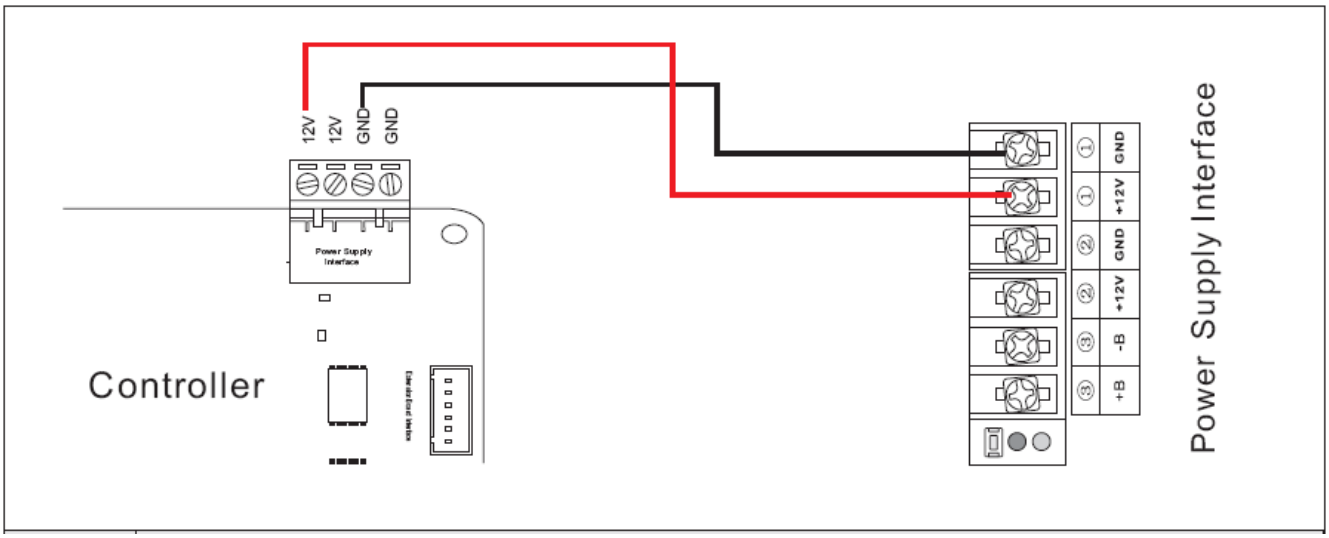
Opening of the sensor housing is monitored sabotage. Connect it to the free input detector line in controller and activate the program so that the alarm was generated.

Look at diagram on next pages for details.



Wiring diagram inside power supply
to the standard controllers Kade

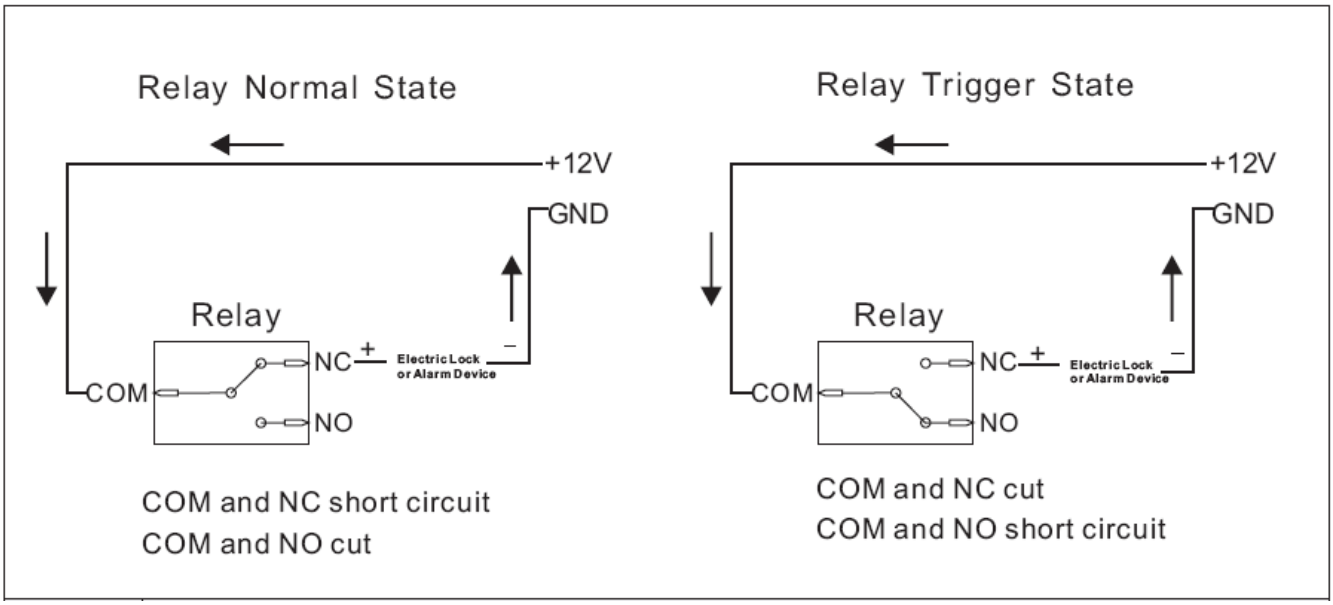
Power supply connection



Remark

Wire: Two-core supply power cord
Power supply: Voltage 12V, Current >2A
Distance: Within 100 m
Note: Please turn off power supply before start connection.
Please also note positive-negative connection.

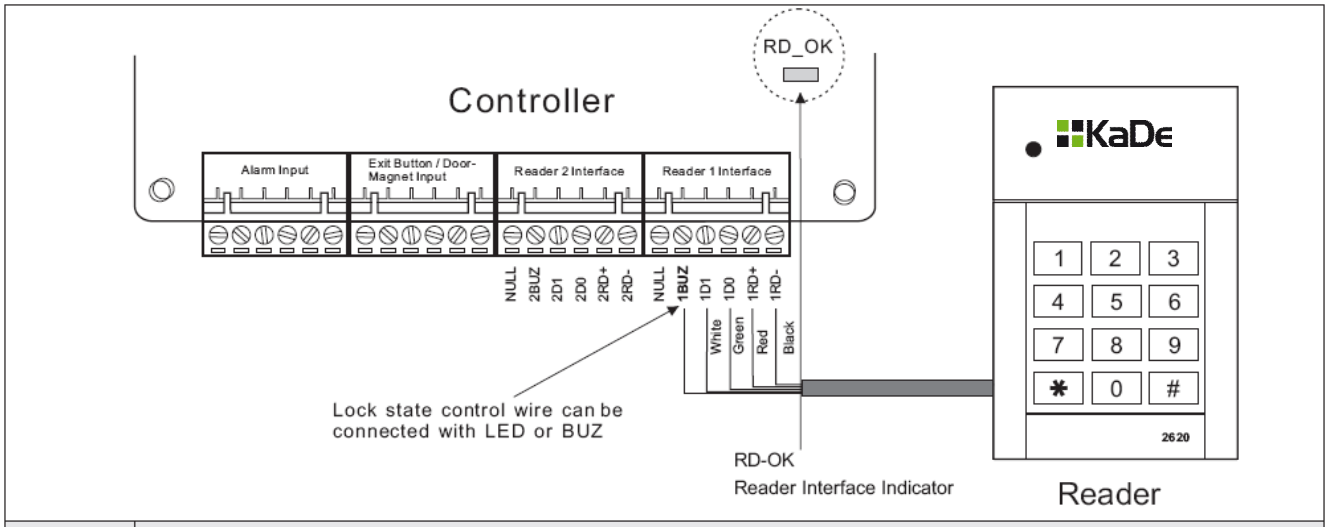
Electric lock and alarm outputs working principle



Remark

NO - (Normal Open) - normal open contact
NC - (Normal Close) - normal close contact
COM - (COMmon) - common contact

Reader connection



Function	Color	Reader 1	Reader 2
Supply power -	Black	1RD-	2RD-
Supply power +	Red	1RD+	2RD+
Wiegand D0	Green	1D0	2D0
Wiegand D1	White	1D1	2D1
BUZ / LED	Grey/Blue	1BUZ	2BUZ

Remark

Wire: 6-core screen wire or FTP-5 8-core screen twisted-pair

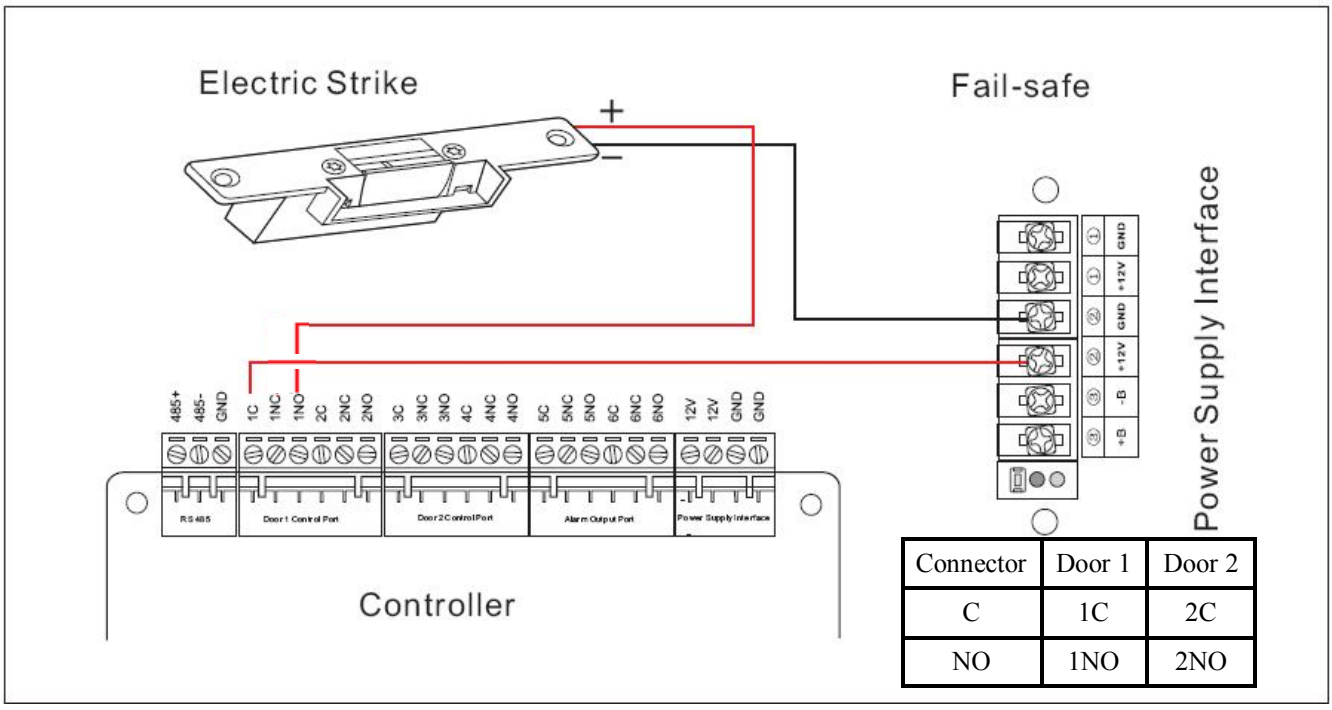
Distance: Distance between controller and reader ≤ 60m

Note: Reader should be of the same format as in the software.

Reader Connection Indicator: When user presents card to the reader, RD_ OK light will flash one time only when the connection between reader and controller is correct and controller interface works properly, otherwise, RD_ OK light will not respond (Hardware V1.2 or above is supported only).

BUZ/ LED - lock state control wire can be connected with LED or BUZ. When lock is not closed, BUZ will beep or LED will be light until the lock is closed (Hardware V1.2 or above is supported only).

Electric strike NC type connection

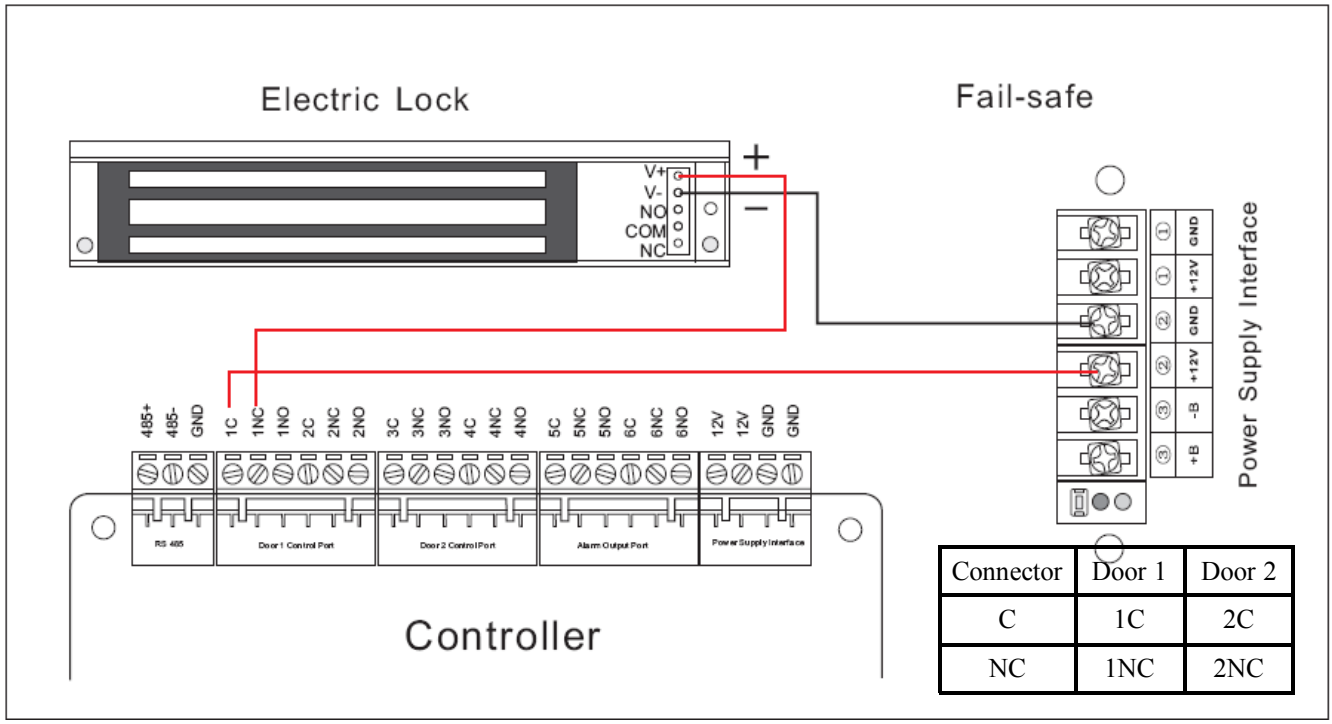


Connector	Door 1	Door 2
C	1C	2C
NO	1NO	2NO

Remark

Wire: 2-core power supply wire. Power Supply：DC12V. Distance: Within 150 m
Suggestion: electric lock and controller power supply should be separated, and electric lock current should be less than 1A.

Electromagnetic lock NO type connection

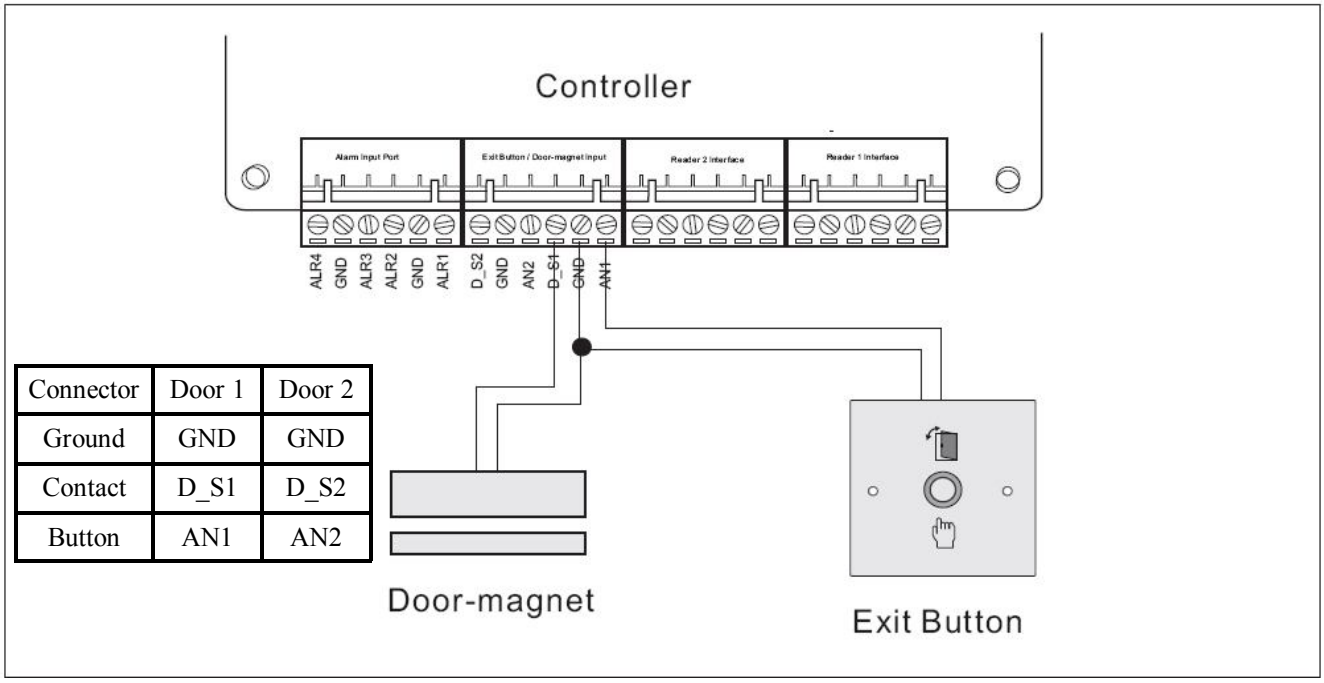


Connector	Door 1	Door 2
C	1C	2C
NC	1NC	2NC

Remark

Wire: 2-core power supply wire. Power Supply：DC12V. Distance: Within 150 m
Suggestion: electric lock and controller power supply should be separated, and electric lock current should be less than 1A.

Door contact and exit button connection



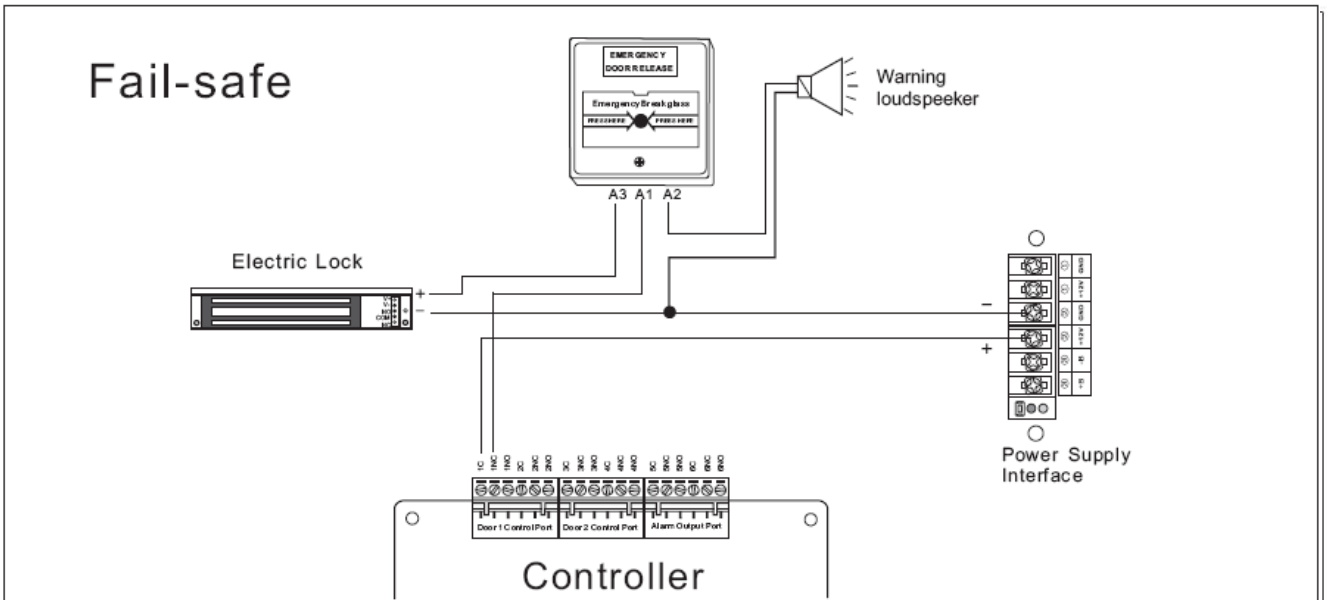
Connector	Door 1	Door 2
Ground	GND	GND
Contact	D_S1	D_S2
Button	AN1	AN2

Remark

Wire: 2-core screen wire. Distance: Within 150m

Note: Input type of exit button and door-magnet should be the same as in the software.

Emergency exit button connection



Remark

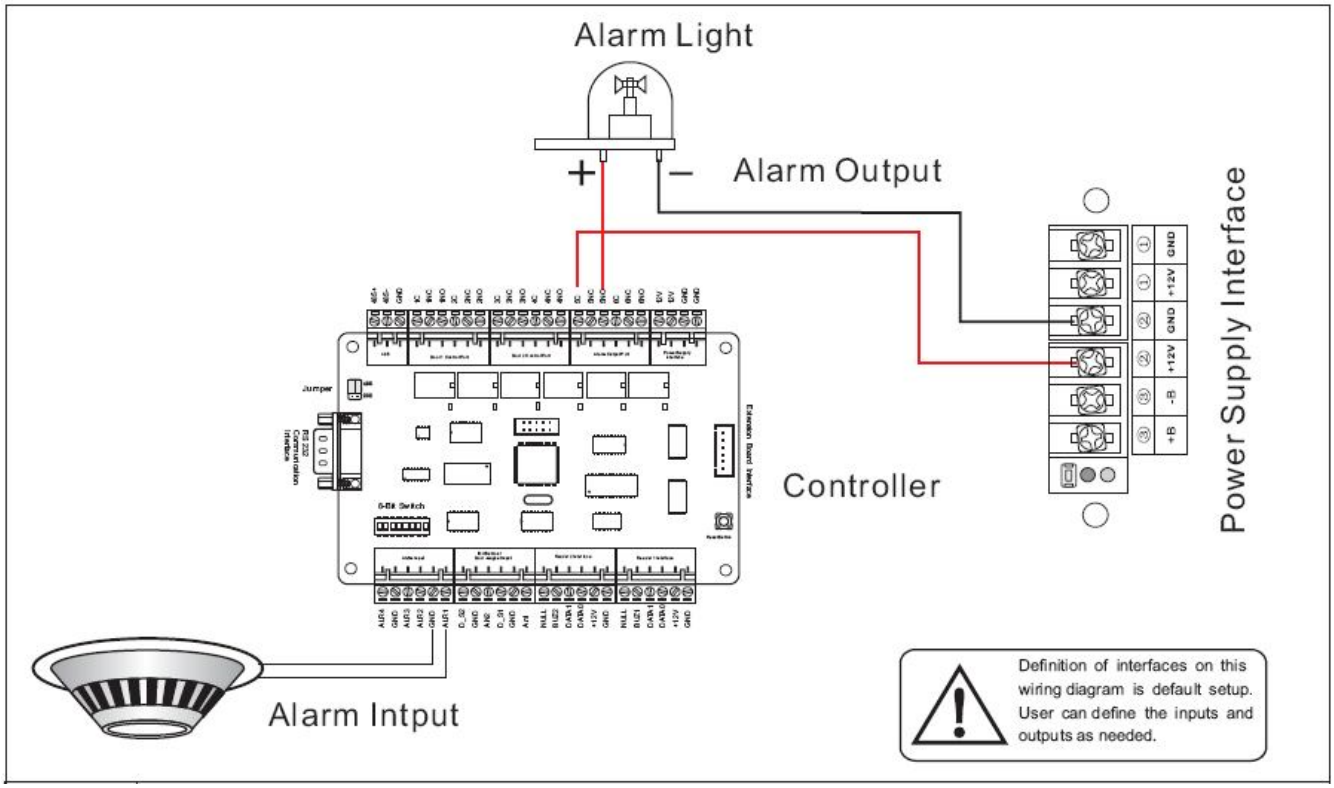
Wire: 4-core wire

Note: A1 is public terminal

Normal situation: A1-A3 is pass, A1- A2 is open

When glass is broken: A1- A3 is open, A1-A2 is pass

Alarm input / output connection



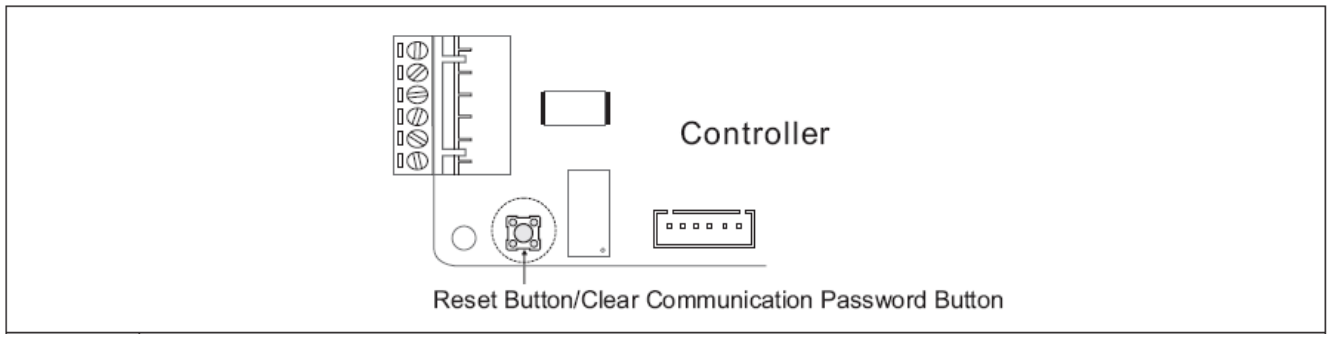
Remark

Wire: 2-core

Interface: Switch input

Note: The actual alarm input type must match with software setup.

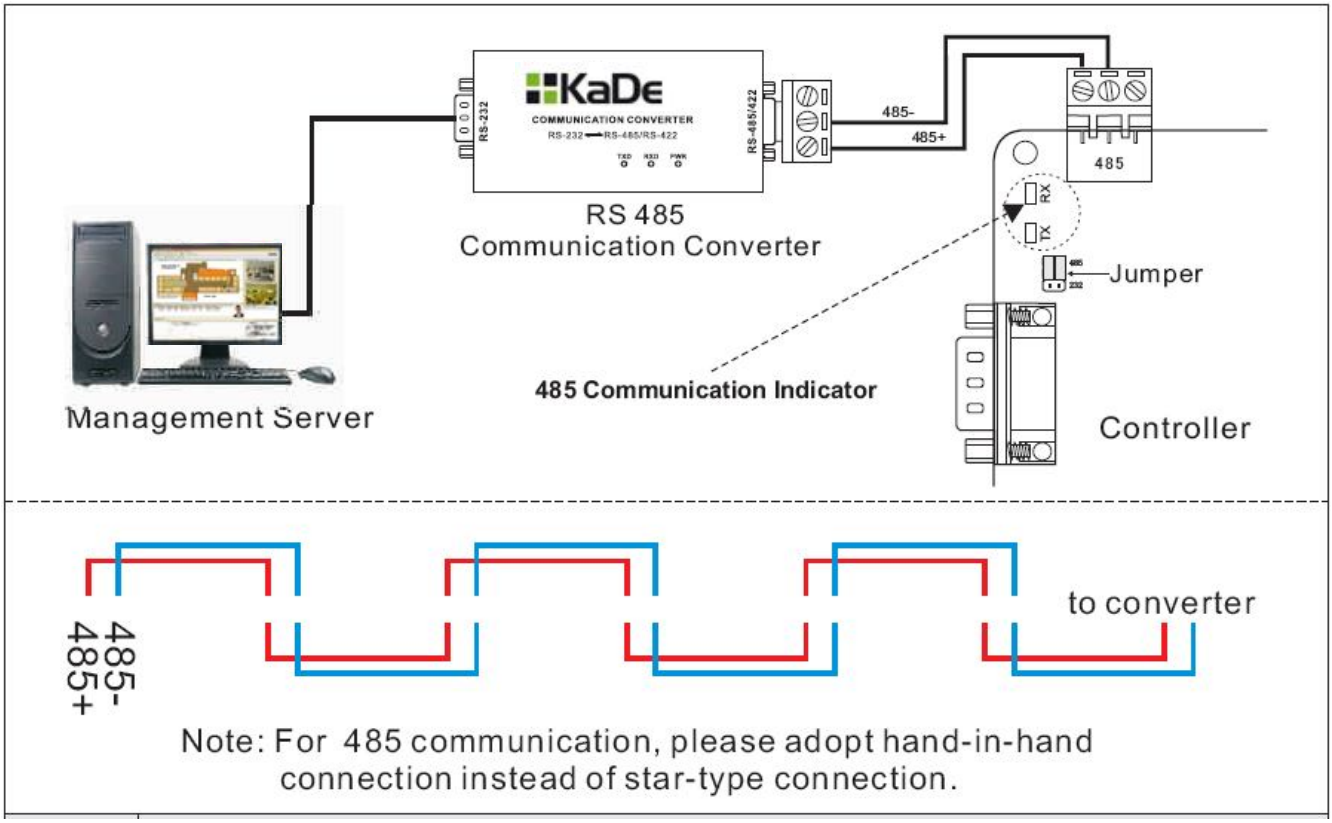
Clear communication password button



Remark

Instruction: In case communication password is unknown, user can press the button to clear the communication password.

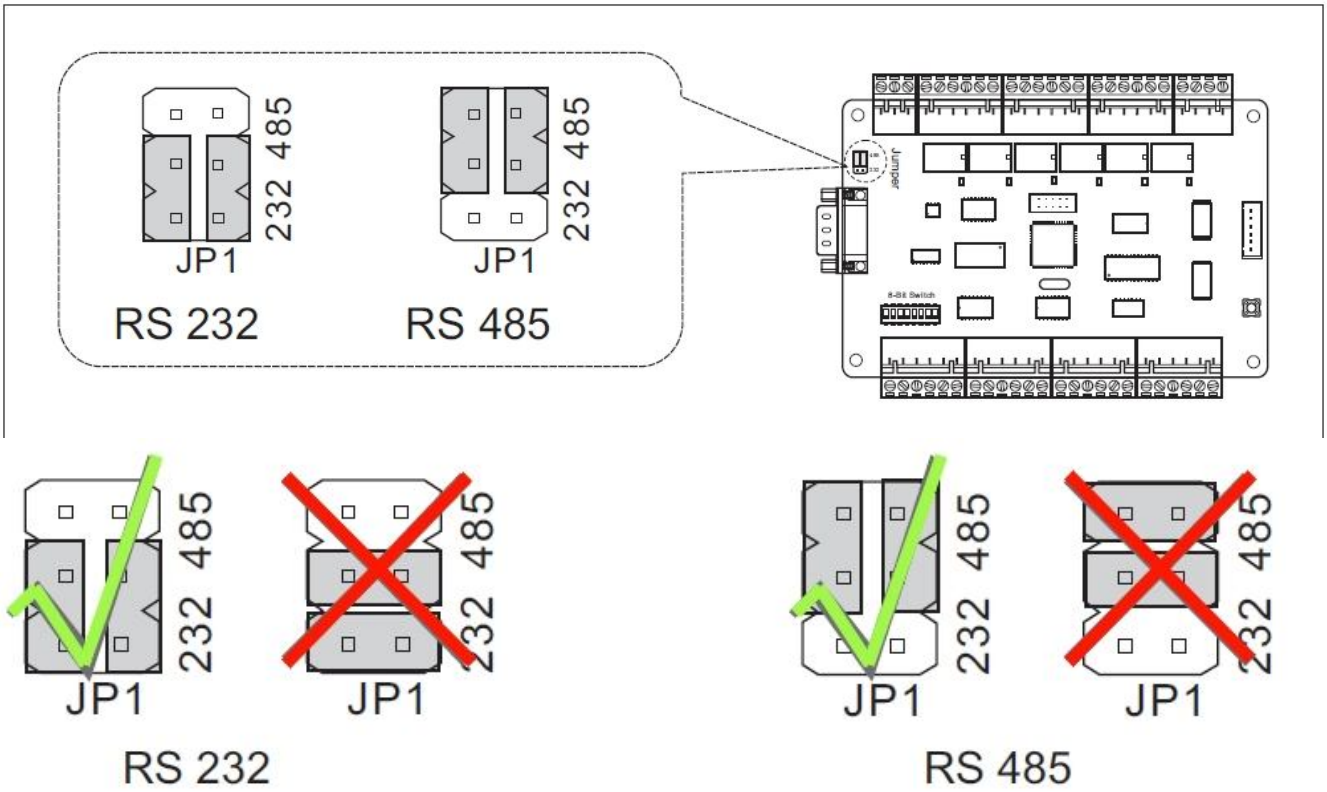
RS-485 communication connection



Remark

Wire: UTP-5 - 8-core screen twisted-pair (use two pair)
Distance: 800m (Theoretical distance is 1200m. In practical application, distance is around 800m. To prolong the distance, repeater should be added).
Converter: Active converter (Passive converter should be avoided since it may cause communication problem)
Jumper: Jump to 485 position
Suggestion: USB converter and passive converter are not recommended in bigger installation.
485 communication light: RX and TX will flash only when controller is in communication state.
When RX and TX connection is reversed, RX light will be Light all the time (Yellow light), (Hardware V1.2 or above is supported only) .

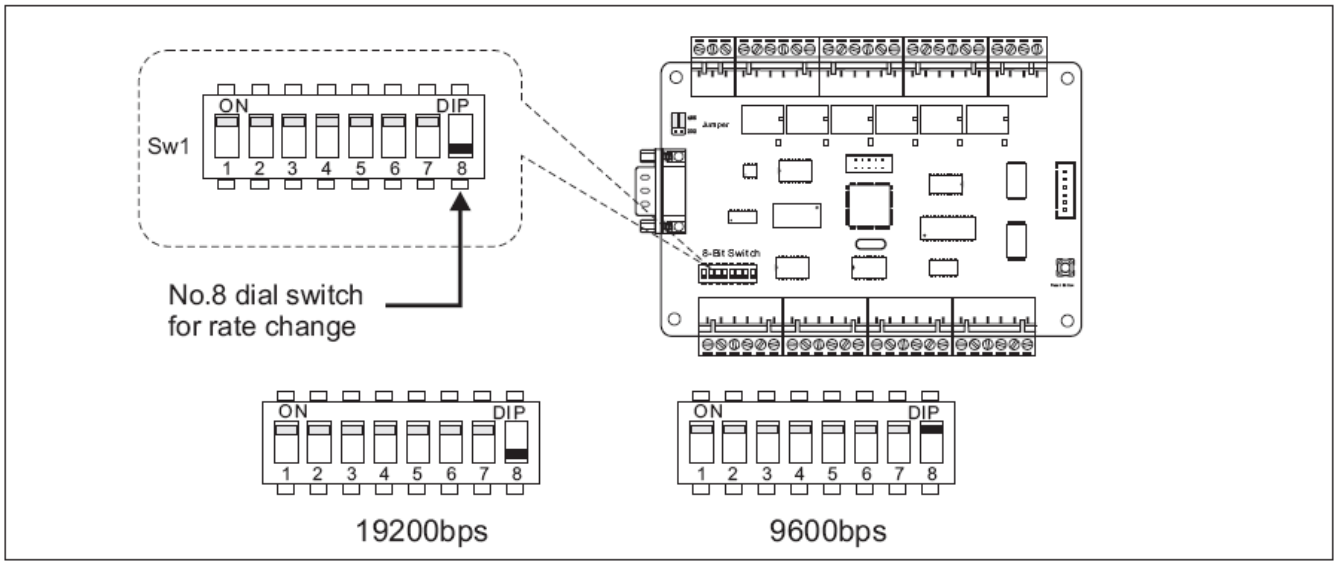
Change communication mode



Remark

Controller can connect with PC via RS 232 or RS485 (trough converter). Make sure JP1 is on the right position. Do not change communication mode by horizontal jump.

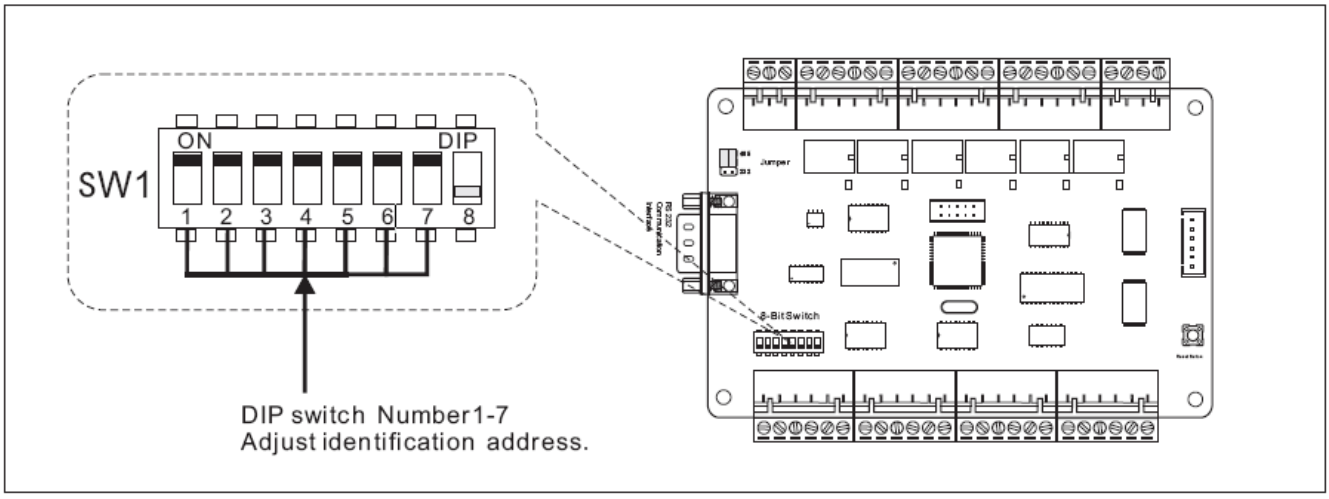
Change Communication Rate



Remark

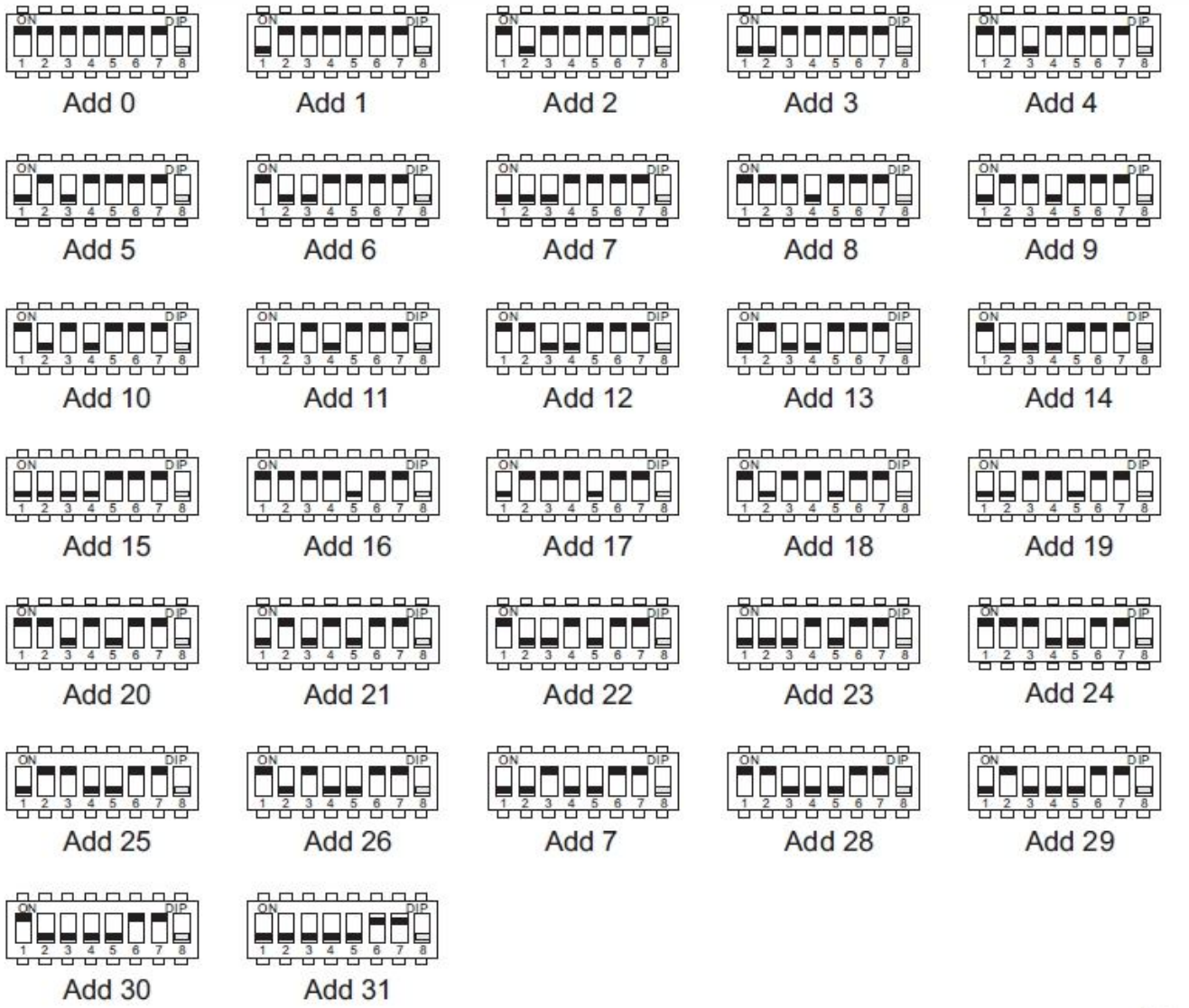
KS-1012/24-RS controller series can connect with computer by 9600bps and 19200bps communication rate (default setting is 19200bps). Controller baud rate must be the same as the baud rate of the serial port on software.

Change controller address

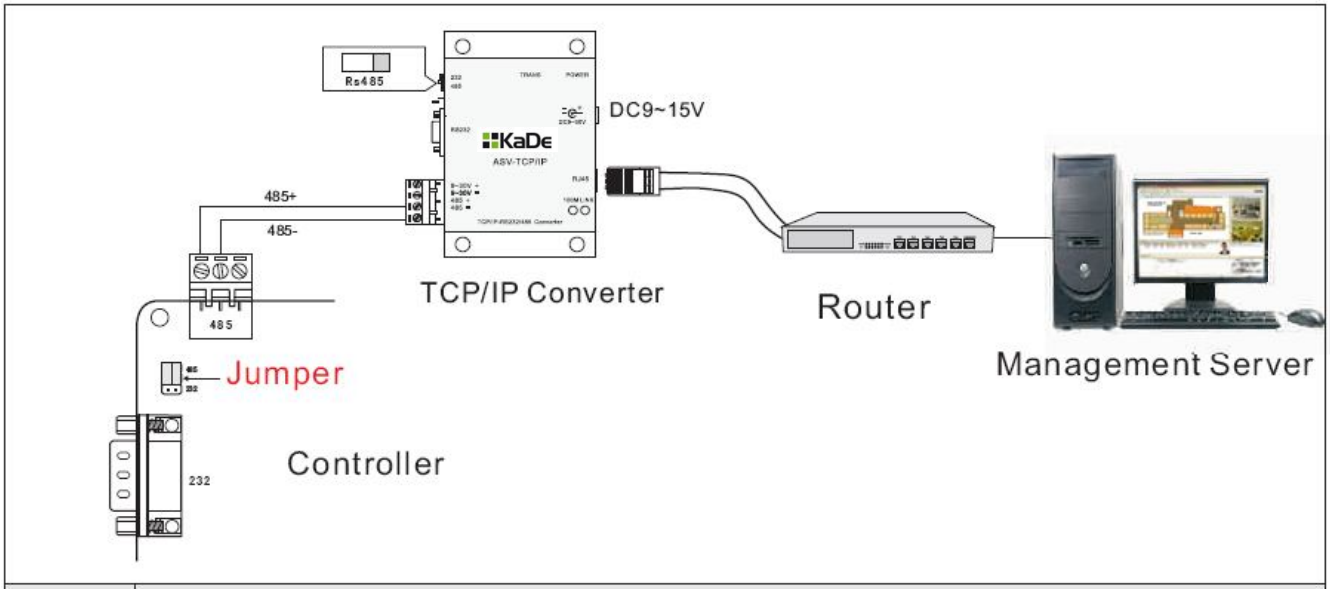


Remark

Change the identification address of DIP switch SW1. This setup is to KS-1012/24-RS.
The controller address can be set as the following: Note: Default address is 0.
Every bus can connect 32 controllers. Every controller address must be unique.



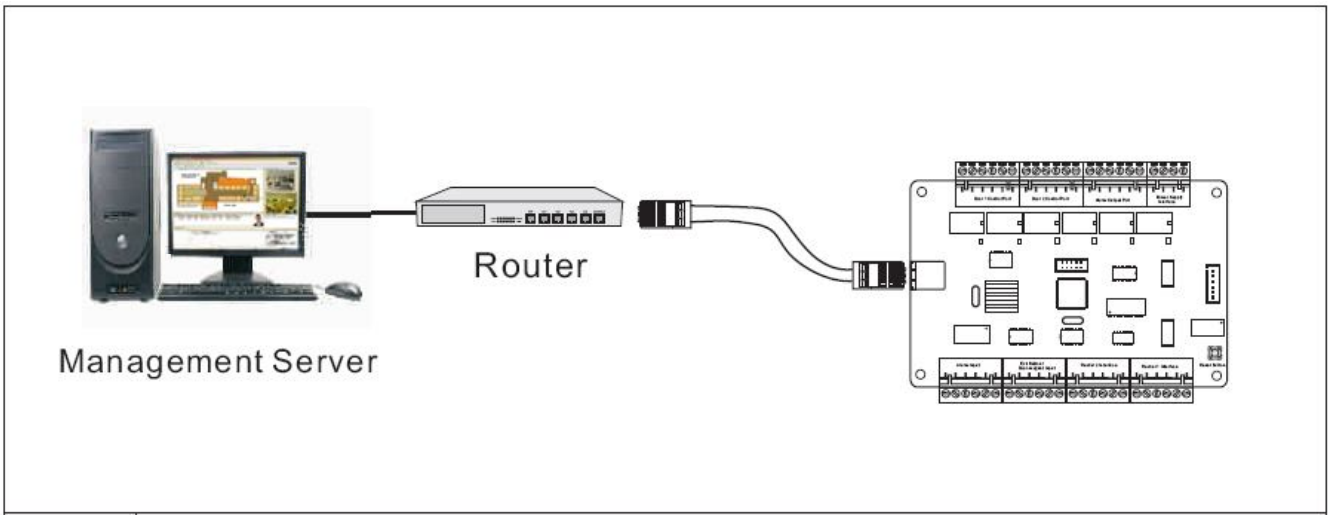
Convert RS 485 to TCP/IP - KS-1012/24-RS



Remark

Wire: 3-core screen wire (controller-converter) or 8-core screen twisted pair (controller-converter)
Jumper: Jump to 485 position (shown in following picture)
Input Voltage: DC12V

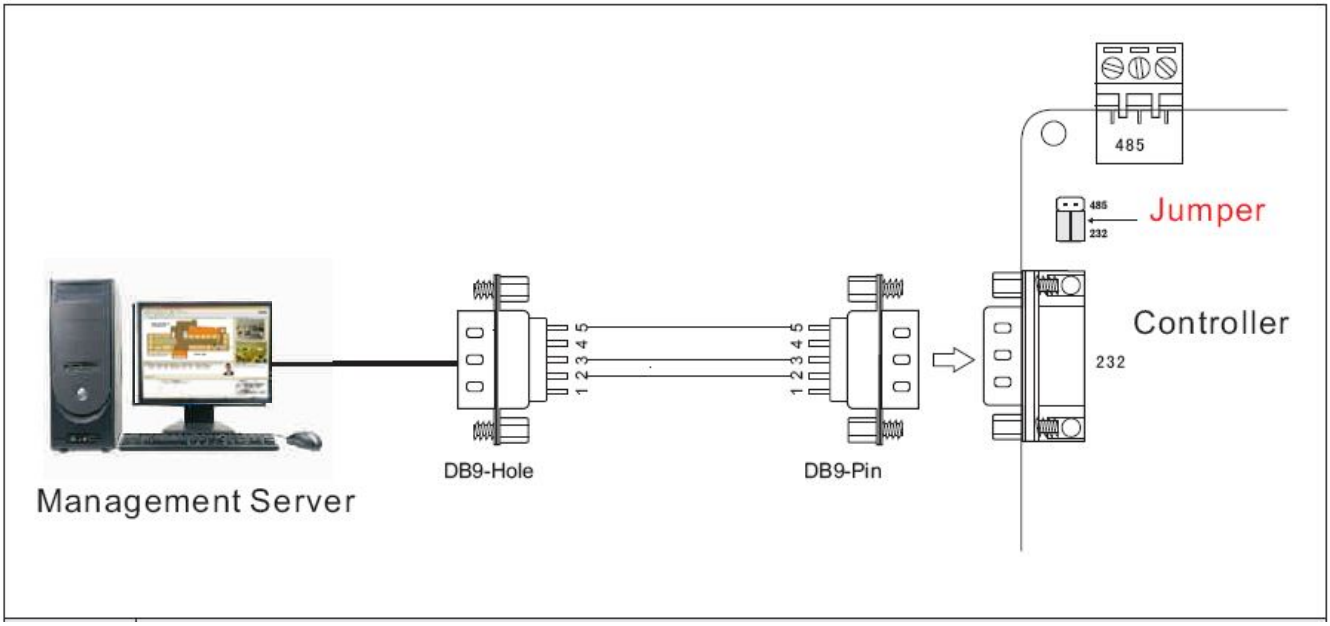
Connect with router or computer directly - KS-1012/24-IP



Remark

Wire: 8-core screen twisted-pair wire
Communication Rate: 10/100 M self-adaptive
Web requirement: Direct Connection/crossing self-adaptive
Network Length: <100m
Note: Controller and LAN must be in the same network.

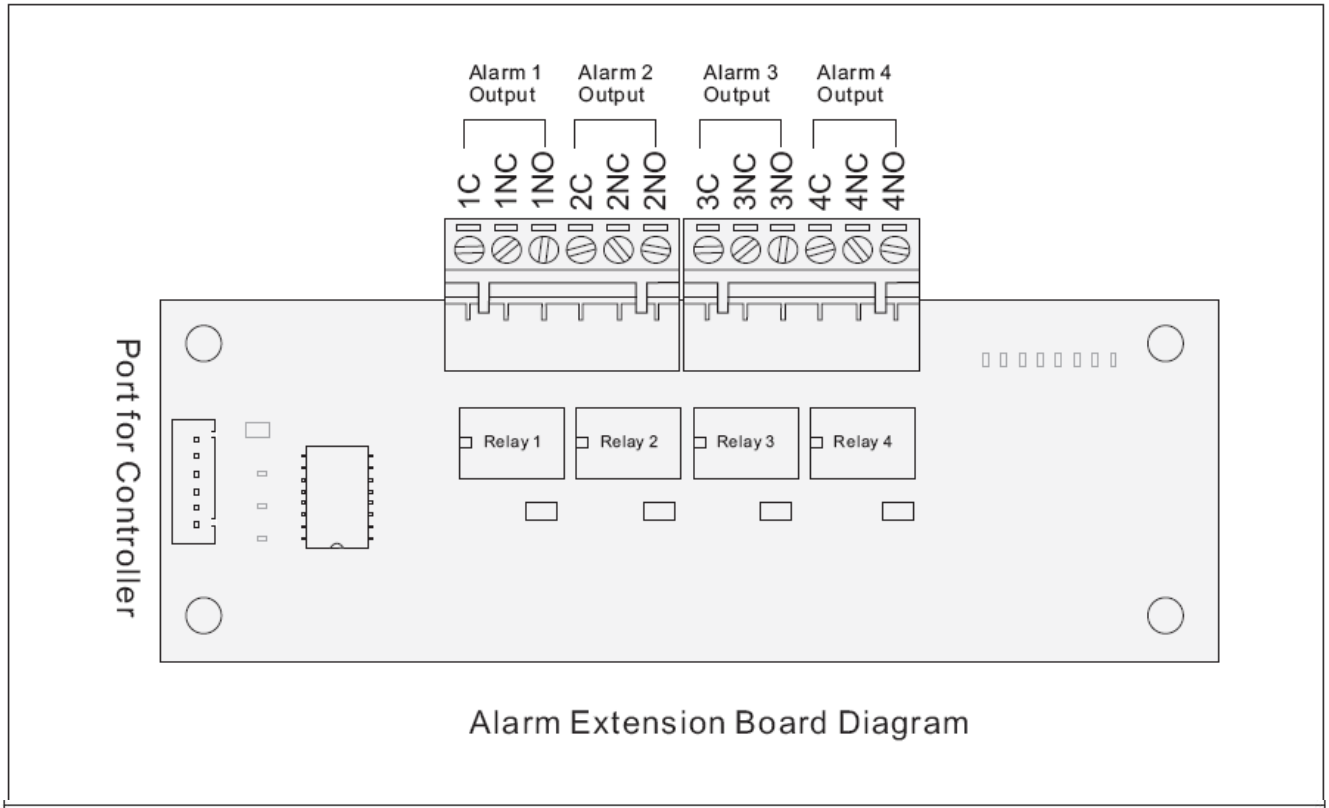
RS 232 communication connection



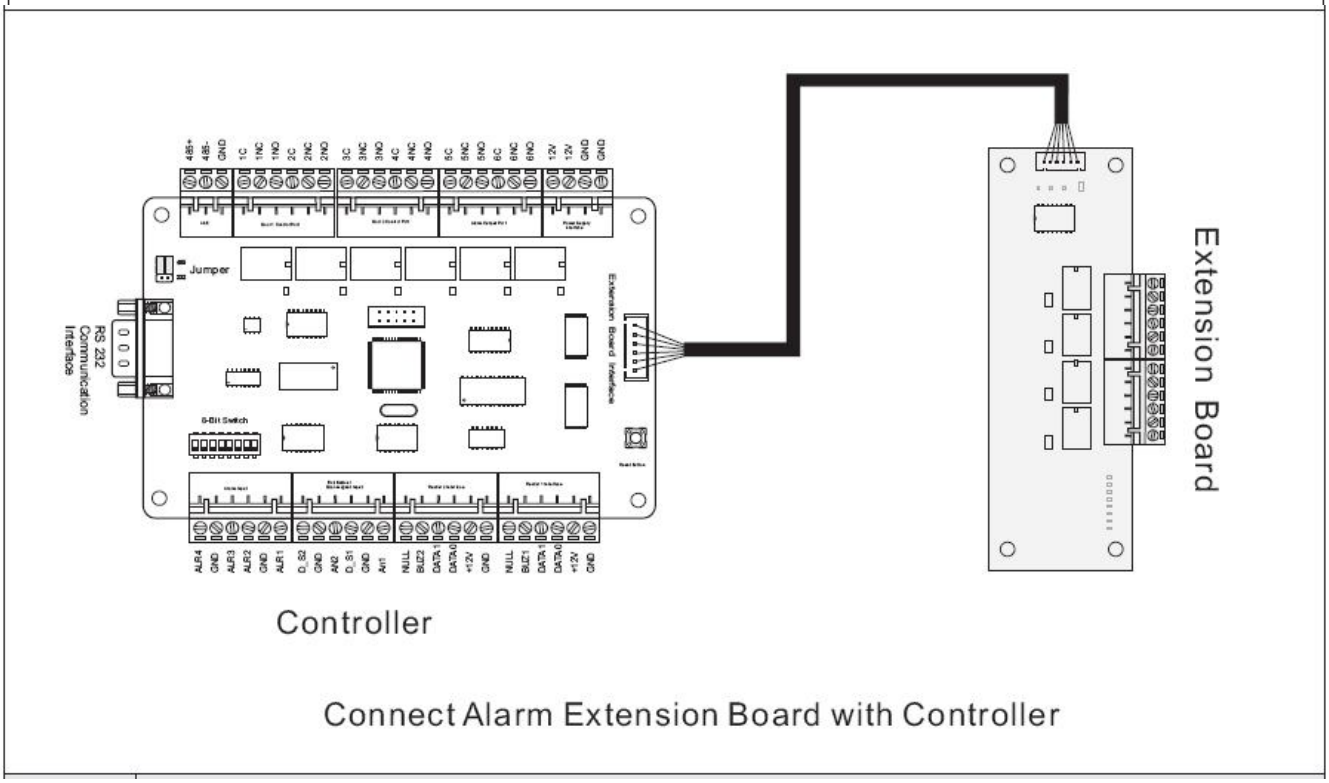
Remark

Wire: Standard serial port wire
Distance: Within 15m
Jumper: Connect 232 position

Alarm extension board



Alarm Extension Board Diagram



Connect Alarm Extension Board with Controller

Remark

Wire: 6P connection wire (Standard wire). Direction: Interface insert mode
Note: When output of controller is not enough, user can adopt alarm extension board to connect with extra devices such as alarm light, alarm bell and DVR etc.
Advice: Please do not define one alarm output to different functions.

Notes for Installation

1. Before installation, please read this manual for detailed product functions and installation conditions.

2. Installation of the controller can be performed only by qualified personnel with the appropriate certificate authorizing the installation and servicing of such equipment.

3. The controller should be installed inside the protected area at a temperature above +2 ° C and normal humidity.

4. Controllers should be located so that the minimum distance from the cables and high voltage devices and other devices that generate electrical noise was 2 m. The minimum distance from the telephone line should be 1 m, and from transmitting devices 8 m.

5. The controller should be powered from the line power supply with backup battery, with parameters. 12 VDC, 2A or 4A. This takes into account any power door locks with the same power supply.

6. KS-1012/24-RS/IP series are compatible with devices from other suppliers. However, it is recommended to study the spec of the devices before connecting them to KS series. In order to avoid possible malfunction of KS series, the reader output format, power supply voltage, power consumption and max. current etc. should be compatible with KS series.

7. KS series are MCU based system which work 24 hours a day. The device should not work nearby environments of strong electromagnetic interference and large or high-voltage electric devices.

8. Check the grounding situation before installation.

9. 485 bus, electric lock wire, reader wire, 220V power supply wire etc. should not go through the same wire or wire case.

10. Cable standard should be in accordance with or above local standard.

11. When control multiple devices, please ensure the uniqueness of device addresses.

12. Star-connection should not be adopted to 485 bus in order to avoid unexpected communication problem.

13. Please make sure KS series are powered off before carrying out any operation. Hot plug in / out is prohibited.

14. Before connecting the power supply controller to perform all the necessary instructions below.
15. Computer connection can be done using RS232, RS485 and built-in converter or IP port.
16. Connection to the computer using the RS232 port should not exceed 15m.
17. Connection to the computer using the RS485 port should not exceed 1200m.
18. To the RS485 bus can be connected to 32 controllers. Each controller must be set to a different address.

19. Please do not touch components with bear hand since body static-electric may damage the components.

20. When installation is completed, please check:
Is the connection correct?
Is there any short circuit or open circuit?
Is the back of controller completely separated from conductive materials?

21. Please do not dismantle or change the controller chip. Incorrect operation will damage the controller. In case of product failure or any technical problem, please contact with supplier.

Wire Requirement

Cable Direction	Wire Standard	Wire Distance	Remark
PC→Switch/ Network Controller	8-core screen twisted-pair wire (UTP-5)	100m	
Switch→Controller	8-core screen twisted-pair wire (UTP-5)	100m	
PC→Switch 485 Converter/485 Controller	Standard Serial Port Wire	5m	Including Products
485 Converter→Controller	8-core screen twisted-pair wire or 2-core screen cable (2×0.75～1.0)	800m	
Reader→Controller	8-core screen twisted-pair wire	60m	
Electric→Controller	4-core screen cable (4×1.0)	150m	
Exit Button→Controller	2-core screen cable (2×0.5)	150m	
Emergent Exit Button→ Controller	2-core screen cable (2×0.5)	150m	
Controller→Extension Board	6P Connection Wire	20cm	Including Products

Trouble-Shooting

- **Reader can not read card**

There are many reasons for this problem. User need to check:
1. When present card, is there any sound? Is the LED on?
2. Please check the connection. Is there any short-circuit or cut? Is your reader output format correct?
3. Check the Register Card function of software. Is the card information received?
4. Please check controller voltage DATA0 and DATA1. Voltage above 4V indicates the reader dysfunctions; while lower than 4V indicates controller dysfunctions.

- **Software can not connect with database**

1. User is not authorized to write the database. (Go to WINDOWS/TEMP/, change the read authorization to EVERYONE\everyone or install new system).
2. Module problem, user need to install again.
3. Operation system fails, re-install the system.

- **Lock can not be closed**

Connect the lock with12V power supply directly. If lock works, then test C and NC port and check whether there is any short-circuit (for fail-secure lock).

- **Door can not be opened by presenting card**

1. Make sure reader connection is correct.
2. Check whether the card number is in card record.
3. Check validity of the card.
4. For valid card, is the LED on and relay sounds when presenting card? If both are
ok, check lock connection and lock state.
5. If card is indicated as invalid, reasons are:
a) The card is illegal. The card is not registered and assigned by the software. User need to assign the card to access group.
b) The card is an expired temporary card. (Temporary card can be used within certain period only.)
c) You are using card+password mode.
d) Your access group are not authorized to access this reader.
e) This reader needs First- card open (Any other card can open the door only after First-card is presented to the reader.)
f) This reader needs multi-card open.
g) Card is not detected, present the card again.
h) Your card is damaged; make sure there is no fold, no burn and no magnetization.
I) The reader has anti-passback function. User can not present card on the same reader continuously.
j) This reader is used for attendance only.
k) System sets "All Day Forbidden".
I) "Remote control" is applied on this reader.

◆ Card-present time missed in the record

1. Database is not compatible.
2. Controller time is incorrect.

◆ Card-present Record disappears

1. Memory is damaged.
2. Record overflown.
3. History record is covered by new record.
4. Download record before upload. History record is cleared.

◆ TCP/IP converter problem

TCP/IP converter should be applied with Anson software. In case of data transmission error, user can adjust converter transmission delay.

◆ Fail to connect controller via RS 485 communication mode

Converter applied should be active and equipped with signal amplifier. In addition, some types of USB-232 converter may not be compatible.
Theoretically, communication distance of RS485 is 1200m, but its practical distance is around 600m (because of interference, w i r e type, load capacity and so on).
It is not recommended to connect too many devices on a RS 485 bus. The prima quality connected is around 20 units. To connect more devices, user can add a 120 ohm resistor between 485+ and 485-.
Screen twisted-pair is the best choice. Moreover, user should also note that the communication rate of software and hardware should be the same.

◆ Connection of RS485 communication

Serial connection should be adopted.

◆ Time is incorrect and can not open the door

Validity of card is related to time. Due to component failure, aging and interference etc., controller time may differ from PC time. It is recommended that administrator adjusts time periodically (every 2-3 months).

◆ Red light is still on after magnetic lock closed

This is caused by the mismatch or gap between lock surface and lock-core.

◆ Software password is forgotten

If possible, please send us the database for recovery.

◆ Real-time monitoring does not work

Firstly, please edit an E-map and add some monitor position in the software.
Secondly, ensure the connection between controller and software. For detailed information, please refer to user manual.

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